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Ontario

THE ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

DATE: Nov. 26, 1975

TIME: 8pm

LOCATION: Owen Sound

VOLUME NO: 9a

OFFICIAL REPORTERS

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ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Meeting held in the Downtowner
Motor Hotel, 845 Second Avenue,
Owen Sound, Ontario, on the
26th day of November, 1975, at
8:00 p.m.

MEMBERS OF THE COMMISSION:

DR. WILLIAM M. STEVENSON	---	CHAIRMAN
ROBERT E.E. COSTELLO, ESQ.	---	MEMBER
GEORGE McCAGUE, ESQ.	---	MEMBER

EXCERPT ONLY

VOLUME 9A



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v. 26
e. 1

1 --- EXCERPT ONLY of Proceedings of Meeting
2 (approximately 9:30 p.m.)

3 THE CHAIRMAN: I would like to ask
4 Mr. Lorne Creighton if he would be kind enough to
5 speak to his submission. Mr. Creighton?

6 MR. LORNE CREIGHTON: Thank you,
7 gentlemen. I regret that I was unable to be here
8 from the outset of this meeting so I don't know how
9 much my comments are repetitious of the concerns and
10 the interests of other members of the community who
11 may have been expressing themselves to you.

12 I wish to present this statement on
13 my own personal behalf and Mr. McCague's remarks
14 notwithstanding, I feel that many of us would feel
15 that we, personally, and in association with the
16 group of which we are members, are perhaps quite
17 incompetent to engage in very much research without
18 the assistance of those who could design that research
19 and perhaps use us for the leg work.

20 My statement does not attempt to
21 get into too much detail but I hope will reflect on,
22 if you like, values that are important to me in
23 planning.

24 By way of preamble, let me assure
25 the Commission that I, of course, accept that there
is a need to expand facilities for generating



ve. 2

1 electrical power in Ontario. A growing population
2 and growing industrialization in our society dictate
3 the greater availability of electrical energy.

4 I hasten to add, however, that if --
5 and on this I am not on too firm ground here -- that
6 if the international grid that Ontario Hydro shares
7 with some of the states of the union to the south
8 of us, results in a net export of power, then I
9 begin to question the wisdom of any plan to take
10 any unnecessary risks to the well-being of Ontario
11 residents from the use of nuclear fuels in
12 particular in order to supply U.S.A. markets with
13 our electrically generated power. It would be
14 similarly questionable to pollute our waters with
15 heat or our air with fossil fuel effluents in order
16 to supply power for American needs.

17 A tradeoff may be indicated here
18 however due to Ontario Hydro's exploitation of what
19 I understand are its own Pennsylvania low sulphur
20 coal fields. I am assuming that continued
21 exploitation of Hydro's American coal may be tied
22 to our willingness to export power. Alternative
23 supplies of low-sulphur coal from Canadian fields
24 should perhaps be being reassessed. I have a
25 heading, Rates of Growth in Use. We are



Eve. 3

1 contemplating massive public debts to provide an
2 expanded generating facility in Ontario. I
3 personally wish to plead that every economic and
4 effective means be employed to minimize waste of
5 electrical energy, and to persuade the public and
6 industry to abandon styles of life or styles of
7 industrial operation that lead to unnecessary use
8 of electrical energy.

9 I might just depart from this
10 statement to note very simple things. I am a
11 school teacher, and already the weather is cold and
12 teachers are not in the habit of closing their
13 classroom windows when they leave. The hardware
14 on the school doors is such that if a student gives
15 it a particularly hard push it may stay open behind
16 him, and it may stay open for 40 minutes until the
17 next class change when the teacher notices that
18 we are heating all of Grey County and the great
19 outdoors. It may well be that programs of energy
20 conservation could be conducted in the schools at
21 very little expense to the public at large. So
22 I think that we should, both in industry and in
23 our private lives, be prepared to change our styles
24 of living and styles of operation to conserve
25 energy.



Eve. 4

1 On the question of sources of energy
2 for conversion, I would direct attention first to
3 fossil fuels. It is becoming increasingly apparent,
4 I think, to everyone in our society that petroleum
5 and natural gas are not going to be economically
6 available.

7 Further these, especially the crude
8 oil, would perhaps be better conserved for alternate
9 uses rather than used as a fuel, for example, in the
10 manufacture of a wide variety of petroleum based
11 products. This, too, would apply to coal except
12 that it is generally conceded that we have a great
13 deal more reserves in coal than petroleum.

14 Coal creates problems for maintaining
15 a good atmospheric condition. Effluents, particularly
16 compounds of sulphur, are said to be injurious to air
17 quality. You will note that I have inferred above
18 that Ontario Hydro may be forced to forfeit
19 exploitation of its Pennsylvania coal fields as the
20 energy crisis grows in the U.S.A. and they come to
21 value those deposits even more.

22 Therefore, alternate energy resources,
23 I concede, must be considered. It is likely that
24 such considerations as those I have pointed to led
25 to policy years ago of developing nuclear generating



Eve. 5

1 stations.

2 So, then, with that kind of a
3 background, I personally concede the need for
4 alternate energy resources and I want to express
5 very briefly some cautions that I would like to see
6 employed.

7 Though I am aware that the CANDU
8 reactors are internationally known as the best
9 currently available, greater benefits seem to be
10 promised from fast breeder reactors if these can be
11 developed. On greater benefit, I might say, as an
12 aside, would be that if you can get something like
13 50 per cent efficiency of your fuel, I am assuming,
14 and I'm not a technologist here, that then you would
15 have less waste or at least less total radioactivity
16 in your waste than we now have with the current low
17 efficiency that we have from the fuel.

18 Present waste disposal from nuclear
19 fuels is sometimes said to present risks to human
20 health for centuries to come because of the half
21 life of the substances we use.

22 On the heading of Research, I think
23 that when we are budgeting for this current period
24 of 1983 to 1993 and beyond, I would like to see
25 very significant amounts of money available to be



Eve. 6

1 committed to research in the following fields:
2 fast-breeder reactors; solar energy conversion;
3 wind generators; and electrical energy capacitors
4 for storage of solar and wind generated power.

5 THE CHAIRMAN: Thank you very much,
6 MR. Creighton, for a thoughtful brief. I hope you
7 will just stay put for a moment and we will see if
8 we can put some questions to you.

9 MR. COSTELLO: Mr. Creighton, it
10 is interesting to see once again this thought that
11 there should be education in the schools on energy
12 and energy conservation. There is a lot provided
13 to the school systems now on pollution. This has
14 come up pretty nearly everywhere we have been. Just
15 how it could be provided, I don't know, but I think
16 personally it is a very good idea and we are glad
17 to hear it again.

18 Your question on the export of power,
19 it isn't too easy to explain, but Hydro actually
20 have been selling power to the U.S.A. This is
21 power surplus -- it is energy, really -- surplus to
22 their requirements. You have a peak condition and
23 an energy condition. This is not firm power they
24 are exporting or have been exporting. It is
25 recallable; it does not raise their peak.



Eve. 7

1

MR. CREIGHTON: It is in off-peak

2

periods?

3

MR. COSTELLO: It is in off-peak

4

periods, as I understand it. There has been some

5

talk a little earlier about maybe Ontario should be

6

not building stations or using some of their present

7

surplus capacity to export firm power. This was

8

written up in the Globe. I guess actually there

9

were two articles sent in in the last couple of

10

weeks and I was thinking of one and you were talking

11

about the other, but it is off-peak power, as we

12

understand it. Hydro, I am pretty sure, in fact

13

I know they are, are looking at the use of Western

14

Canada coal in unit terms through to Thunder Bay

15

because when I was with Abitibi, we were doing our

16

best to hang some cars on the end of the train, and

17

our coal cost us about twice what theirs did simply

18

because we don't buy in such huge volume. They use

19

about 12 million tons of coal a year. That is an

20

awful lot of coal.

21

MR. CREIGHTON: What percentage would

22

you say of that usage is from their Pennsylvania

23

fields?

24

MR. COSTELLO: I think it is about

25

2½ to 3 million tons.



Eve. 8 1

THE CHAIRMAN: When you say

2

"Pennsylvania", do you just mean American?

3

MR. CREIGHTON: American coal, yes.

4

DR. STEVENSON: Because a lot of

5

their coal comes from West Virginia and Ohio.

6

MR. COSTELLO: And their own output

7

is about 3 million tons -- Bill, is that right, you

8

know better than I do?

9

THE CHAIRMAN: Hydro has certain

10

mines that it has contracted for the entire output

11

thereof. I think this represents something like

12

15 per cent of their U.S. coal purchase when the coal

13

from their own mines starts to enter Canada.

14

MR. CREIGHTON: One point that

15

perhaps I did not really express the kind of emphasis

16

that I would hope to give it, and that is that I

17

think we are inclined to go for what we know and put

18

our money on the CANDU reactor, and let's have lots

19

of them, and perhaps to a certain point that is

20

going to be required, but because of the risks

21

involved, and I am prepared to acknowledge that

22

those in the business are doing everything they can

23

to minimize those risks, still, when I hear of

24

heavy water spillages into Lake Huron from Douglas

25

Point, and I hear of them four years later, I get



ve. 9

1 a little nervous. So, if there are risks in nuclear
2 development, I would like to try to minimize those
3 risks by putting all the dollars we can possibly see
4 our way clear to put into the research into developing
5 capacitors and various kinds of storage for wind
6 generated and solar generated power.

7 Certainly solar generation and
8 wind generation don't result in any kind of pollution
9 and there seems to be a fantastic resource that we
10 are not tapping and our big problem seems to be
11 storage of the energy.

12 I would like to see as much of the
13 as capital/we can put aside directed to research into
14 that kind of facility.

15 THE CHAIRMAN: On the first one you
16 mentioned, research into fast-breeders, I believe
17 I am correct that Ontario Hydro has made a modest
18 contribution to the fast-breeder program in the
19 United States. It is such an extraordinarily expensive
20 program that I doubt whether it would be feasible
21 for Hydro to attempt to pilot plant in Ontario, let's
22 say, but there is one in the Tennessee Valley
23 Authority service area and, if I am not mistaken,
24 Ontario Hydro has at least made a down payment on
25 access to the technology as and when it is developed



re. 10

1 in the United States.

2 MR. CREIGHTON: How far advanced is
3 that technology in the States as compared, for
4 example, to the technology of Britain, or France
5 or the U.S.S.R.?

6 THE CHAIRMAN: We are going to miss
7 Doctor Porter at this point. Would the scientific
8 counsellor bail us out, please?

9 DR. ROSEHART: There is a real
10 problem with fast-breeder reactor technology and I
11 think Canada, being a relatively maybe small -- I
12 shouldn't use the word "small", I could be quoted --
13 small country, the philosophy, I think, the search
14 and development philosophy is to extend the CANDU
15 system, looking at different fuel cycles that give
16 you year-to-year performance.

17 I think several years down the road,
18 30, 40, 50 years from now, we are going to be looking
19 at thermal nuclear fusion type reactors and I believe
20 the philosophy, the Federal philosophy anyway, is
21 that if we can expand the CANDU system with advanced
22 fuel cycles near-breeder performance, then we will
23 be in a position perhaps to go directly from that
24 stage into the thermal nuclear stage although we are,
25 as Doctor Stevenson mentioned, I believe, paying



Eve. 11

1 tuition fees in the fast-breeder program; but there
2 are severe problems. In the U.S. I believe they
3 have had some minor experimental accidents. I
4 believe the situation is not all that good in
5 England either. There are severe material problems.

6 MR. CREIGHTON: So you think we
7 would opt instead in the direction of thermal nuclear?

8 DR. ROSEHART: I think the salvation
9 perhaps is thermal nuclear. It is a long way down
10 the road but I think from Canada's standpoint, the
11 emphasis is going to be on advance fuel cycles for
12 the CANDU system, as something that can be developed
13 in Canada for a reasonable research and development
14 cost and by the time we, say, expand or exhaust our
15 resources of uranium and sodium and say they
16 recycle plutonium, then perhaps by then, hopefully,
17 we will be into the thermal nuclear era.

18 MR. CREIGHTON: One consideration
19 would be from the point of view of your latter
20 comments concerning the availability of fuels and
21 our good fortune in that respect in this nation.
22 The other that concerns me is just what are the risks
23 of disposing of waste from fuels and I suppose with
24 thermal nuclear fusion the risks are lower than they
25 are with the kind of situation we are in now -- I am



Eve. 12

1 talking now about disposal of wastes -- I know the
2 risks are high in other respects.

3 DR. ROSEHART: I don't think anyone
4 is in a position to comment about disposal of waste
5 from fusion reactors because they are not really
6 developed yet. They are a long ways off, but with
7 respect to the radioactive waste management or
8 disposal of waste from nuclear stations, maybe I
9 could talk about the two-armed scientist again.
10 There are lots of scientists who say in this hand we
11 have certain problems and in this hand we have all
12 the solutions. Really, it depends on one's position.

13 My favourite story about the
14 radioactive waste disposal involves a comment from
15 a chap in the United States that the real solution
16 is to put it down on the Antarctic Ice Cap and let
17 it melt its way down to China perhaps, or some place
18 else. The other comment there is that you might
19 not be able to retrieve it if you ever wanted to get
20 it back again to reprocess it, so, a very simple
21 solution, you put some chains on it and just let it
22 melt down so far and then if you want to get it back
23 you take a pickax and you work through the ice.

24 But to come back on a more serious
25 note, there are problems. Earlier today I was



ve.13

1 talking with somebody here -- when the CANDU system
2 was first developed, the first prototype, back in
3 the mid-sixties, the reactors were designed to have
4 a spent fuel bay which would last approximately 10
5 years. I think it was probably the feeling of the
6 people in the business at that time that within
7 10 years our technology would lead us into a solution
8 as to what we would be doing with this material.
9 That doesn't seem to have happened.

10 Now we are talking about perhaps
11 ultimate disposal in the Canadian Shield. There is
12 a study going on in that area. There are some
13 serious problems with respect to reprocessing of
14 fuel. In the United States there have been some
15 technological failures in the last year in the area
16 of reprocessing. General Electric has constructed
17 a large scale plant that just refuses to work. So
18 I would say, you know, there are problems.

19 Fortunately, with the CANDU system
20 it is economic to have once-through fuel. You can
21 fuel the reactor and dispose of it. Disposal is
22 a problem.

23 Just one final comment. A lot of
24 attention is paid to the tonnages of spent fuel.
25 Just as a point of clarification, uranium dioxide is



ve. 14

1 a very, very dense material. It is approximately
2 10 times denser than water, it is up in the area of
3 lead, and it may be a substantial tonnage but it is
4 a relatively small volume but still quite a potential
5 volume.

6 MR. CREIGHTON: I am not so impressed
7 with figures and tonnages as I am about the kinds of
8 injury to human well-being that might be effected
9 by radiation from the wastes, although I realize
10 that that is minimized. Some of my friends at the
11 Bruce Nuclear Station tell me they are in less
12 danger than I would be if I walked into a shoe store
13 and had my foot X-rayed when I was trying on size.

14 My point is that we must minimize
15 all those risks because the consequences are grievous
16 indeed.

17 DR. ROSEHART: I think it is a matter
18 of making a decision and the Commission, through its
19 research group, is going to be looking at the present
20 state of technology and then this information will
21 be presented to the public in public forums and
22 hopefully a consensus on what to do will be reached
23 and the Commission will report to the Government.

24 MR. CREIGHTON: Thank you, very
25 much.



Eve. 15 1 THE CHAIRMAN: Thank you, very much,
2 Mr. Creighton -- very thoughtful brief.
3
4 --- End of Excerpt (approximately 9:45 p.m.)
5 Refer to tape log at 207 for balance of Proceedings.
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THE ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

DATE: Nov. 27, 1975 **TIME:** 3pm

LOCATION: Wingham

VOLUME NO: 10

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Meeting held at S.E.Madill
Secondary School, 231
Victoria Street, East,
Wingham, Ontario, at 8:00
p.m., November 27, 1975.

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MEMBERS OF THE COMMISSION:

14

15

GEORGE McCAGUE, ESQ.

CHAIRMAN

16

ROBERT E.E. COSTELLO, ESQ.

MEMBER

17

DR. WILLIAM W. STEVENSON

MEMBER

18

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23

VOLUME 10

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1 ---On Commencing at 8:00 p.m.

2 THE CHAIRMAN: Ladies and gentlemen,
3 we will now call the meeting to order, please.

4 Welcome to this informal evening
5 session, this community meeting of the Royal
6 Commission on Electric Power Planning.

7 I am George McCague. I have spent
8 most of my life farming and associated with farm
9 organizations, and will be concentrating particularly
10 on the concerns of the farmer.

11 It is my pleasure to introduce my
12 fellow Commissioners. On my left, Mr. Robert
13 Costello, Vice-President of Abitibi Limited; he has
14 an extensive background and experience in industry;
15 he has been a long-time resident of the North; and
16 an engineer by profession.

17 On my right, Dr. Bill Stevenson,
18 economist with special interest in the field of
19 energy systems. In addition to being a member at
20 this Commission, Bill is also a member of the
21 Ontario Energy Board and he has recently been
22 Presiding Officer of the Ontario Hydro rate hearings
23 which were reported a few weeks ago.

24 I should point out at this stage that
25 Mr. Costello has been assigned the task of studying
and reporting on the priority projects outlined in



A/2

1 the Terms of Reference; and these you will find in
2 your kit.

3 I want to convey to you the regrets
4 of Madame Solange Plourde-Gagnon, our consumer
5 representative on the Commission. This, by the way,
6 is our twenty-first meeting in our coverage of
7 the Province. We have been in Windsor and in Timmins
8 and many other points of the Province and we have 12
9 more meetings before we complete the preliminary
10 hearings late in December. Madame Solange has found
11 this rather strenuous and decided that she should take
12 this week and recuperate.

13 In particular I want to pass on to you
14 the regrets of Dr. Arthur Porter, our Chairman. Dr.
15 Porter would have enjoyed very much being here this
16 evening to see this splendid attendance of interested
17 people. Some of you will recall the meeting date was
18 set for last evening, Wednesday, but because of conflict
19 with annual meetings of farm organizations, we moved
20 the date ahead; this got Dr. Porter into a conflict
21 with a date he had set up with Mr. Justice Berger who
22 is a one-man Commission investigating the impact of
23 the Mackenzie Valley pipeline, and they are meeting in
24 Toronto today. That meeting was set up quite some time
25 ago and they have a number of points of common interest
that they wanted to discuss and that is why Dr. Porter



A/3

1 is not with us; and we extend his regrets.

2 I would like further to introduce a
3 senior member of our staff, Dr. Bob Rosehart. Dr.
4 Rosehart is Scientific Counsellor to the Commission
5 and his major responsibility will be to translate some
6 of the complex scientific and technological issues
7 into language which we Commissioners can understand.
8 Now, speaking for myself, if I can understand it I am
9 sure most of the interested public will have no
10 difficulty in doing so.

11 (How is the sound there? Am I talking
12 too loudly or is it coming through satisfactorily? Is
13 it okay? Very good.)

14 We want to stress, ladies and
15 gentlemen, particularly that this is a very informal
16 gathering. It is a sort of a community meeting,
17 rather a new step insofar as Royal Commission
18 procedures are concerned. Normally we would have
19 commenced with formal hearings but we do believe that
20 in our responsibility of assessing the long-term
21 electric power requirements that we must have input
22 from the public and we are seeking your involvement,
23 your dialogue, your views, your ideas and participation.

24 The next item on the agenda is the
25 Chairman's remarks and, ladies and gentlemen, of
necessity I am going to be very, very brief. We have



A4

1 nine submissions - actually we have eleven submissions
2 and in one of the submissions there are seven groups
3 that have gone together to make one presentation,
4 although there will be more than one speaker making
5 that presentation, so it naturally follows that a great
6 deal of the evening will be taken up in receiving
7 submissions which will certainly curb our questions
8 from here, hopefully allowing a fair amount of time at
9 the end for participation by everyone or anyone here
10 that would wish to ask a question or make a verbal
11 submission.

12 The presentations are written or
13 verbal concerning the enunciation of major issues; and
14 ideas relating to the format of the inquiry which any
15 member of the audience may wish to present at this time
16 we will proceed with as soon as I make a few very brief
17 comments.

18 We will have coffee, hopefully about
19 10 o'clock to give us a break in the evening and I
20 suggest that we take advantage of that because it looks
21 like quite a lengthy discussion.

22 Since the main purpose of the meeting
23 this evening is for the Commission to hear the ideas of
24 as many members of the audience as possible, I am not
25 going to take any time to read the Terms of Reference.
They are in your kit.



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Also, in your kit are a list of issues; a paper covering the funding or financing program; a paper on priority issues; and you will find other information there; a pamphlet describing the personnel of the Commission.

Electric power has become so readily available in society that it is difficult for all of us to reflect on its role in society and even more so to speculate on its future role. In particular, we have been asked to inquire into the concepts which should underpin the future planning of the electric power needs of the Province. This of course is an extremely complex problem.

One of our primary aims is to stimulate your concern and by doing so direct your thoughts to the kind of future you hope for yourself and your children, your grandchildren and your great grandchildren, and hope that they will enjoy it.

The Commission will expect and hope to obtain answers to such questions - how do you wish to be involved in the decision-making process insofar as it relates to electric power planning; to what extent are you prepared to minimize your uses of all forms of energy; is Ontario in the process of a transition from that of a somewhat wasteful energy user



A 6

1 society to that of an energy conserving society.

2 I am sure, ladies and gentlemen, that
3 we have little choice facing us but to take a very
4 strong, long look at conservation.

5 For example, there are countries in
6 Europe with a climate not unlike our own where the
7 consumption per capita is half that of Ontario.

8 I would like to ask, what are the
9 possibilities of the future demand for electric power.
10 Traditionally our power requirements have been
11 increasing at 7% per year. This would mean that in
12 a ten-year period our power requirements as of today
13 would double. Would it be desirable to generate
14 additional electric power if needed by burning fossil
15 fuel or by burning nuclear fuel? What are the costs,
16 including the risks, and what are the benefits of
17 these alternate means of generating electric power?
18 How does electric power planning interact with
19 regional planning in development, with land use, food
20 lands? How can we utilize electric energy more
21 effectively? This issue relates to the whole concept
22 of energy conservation and presents a challenge to all
23 of us.

24 The quality of life - the concept of
25 the quality of life seems to be assuming a more and
more central place in our thinking and certainly the



A 7

1 long-term electric energy requirements tie right into
2 this matter of quality of life.

3 A word on demand for energy. If we
4 assume a growth in the population of Ontario, say, to
5 the end of the century we must obviously take into
6 account the potential growth of industry and commerce
7 to provide new jobs; the potential growth of
8 agriculture to provide food. Since electrical
9 energy is so irreversibly embedded in our society the
10 planning concepts upon which its future generation and
11 distribution are based is an extremely important
12 problem.

13 A brief note on energy conservation.
14 We have been hearing a great deal about the urgent
15 necessity to conserve energy. Basically of course
16 this is because we live in a finite world with no
17 unlimited resources which will be required for future
18 generations. This is the primary reason for
19 encouraging conservation of energy.

20 Neither the problem nor the solutions
21 are simple but we must act now before it is too late.

22 This is a comment again on public
23 participation. This Commission is essentially an
24 experiment in public participation and the Commissioners
25 are determined to stimulate this participation as much
as possible by ensuring, for example, the availability



A 8 1 of information and the availability of ourselves.

2 If we can ensure an adequate level
3 of public participation, there is no doubt in our
4 minds that the Commission will reach viable
5 conclusions predicated on the desires and the hopes for
6 the future of the people of the Province.

7 We have heard a number of times that
8 energy and food are almost synonymous. A shortage of
9 energy could very well mean a shortage of food and
10 this is maybe our major concern. It is in the area
11 where we are meeting tonight. Energy and food are
12 almost synonymous and we must have food; we must have
13 energy; how can we utilize our resources to the best
14 possible advantage.

15 Now we will proceed with the
16 presentations and I would like to call on Mr. Don
17 McKee of CANTDU for the first submission.

18 MR. DON MCKEE: Mr. Chairman, gentlemen
19 of the Commission, ladies and gentlemen, I am here to
20 represent an organization known as CANTDU. CANTDU is
21 a Goderich based citizens' group formed in 1973 and
22 our immediate concern is with the proximity of the
23 Bruce Nuclear Power Development and a proposal to
24 establish a similar complex near Goderich.

25 We now realize that our concern is
not local but of national if not international



A 9 1 proportions.

2 This proposal has been discussed with
3 various university trained people and over the period
4 we have discussed our feelings with various nuclear
5 experts. They assured us that our fears were
6 groundless. "Understand the facts" they told us,
7 "and you will develop complete confidence in nuclear
8 energy."

9 Our group spent over a year touring
10 plants, meeting with experts, reading and discussing,
11 and the more we learned the greater became our concern.
12 We established how little was really known about the
13 long-term effects of exposing things to low levels of
14 man-made radiation. What is known can only be
15 described as deeply disturbing.

16 Studies established organisms living
17 in water containing very low man-made radioactive
18 isotopes may concentrate these materials in their
19 bodies by a factor exceeding 1,000 times. This
20 biological concentration may well continue outside the
21 aquatic environment.

22 In view of information like this we
23 find it difficult to understand a government which
24 continues to permit radioactive pollution of our
25 environment at levels 100 times greater than is
necessary. I might expand here, Ontario Hydro recently



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are
boasts that their emissions/1% of the so-called
missile levels. We can't understand why the missile
levels are so high.

We have learned how countless small
aquatic organisms may at a critically embryonic stage
in their development pass through a system of nuclear
reactors where they are subjected to a sudden increase
in temperature. Many survive, but with what long-term
damage to their metabolism.

CANTDU is gravely concerned about the
production on a massive scale of radioactive materials
of a consistency and (inaudible) that can only be
described as overwhelming. We suggest that it is
inevitable that these materials will escape into the
biosphere in increasing quantities.

This is not the occasion to expand
further on CANTDU's reasons for opposing nuclear reactors
as a source of energy in this province.

We would like to research further
and document our concerns and present them to your
Commission hearings. Such a task requires both time
and money. We know that the proponents of nuclear
energy have access to hundreds of thousands if not
millions of dollars of public funds to prepare and
present their side of the story. The sum we ask for
is modest by comparison. A volunteer effort is the



A 11 1 real measure of our sincerity and we do not propose
2 to sacrifice this.

3 At a recent meeting held in Toronto
4 citizens' groups from across this province with
5 concerns similar to that of the CANTDU group agreed
6 to work together on a formal presentation to your
7 Commission. This will avoid unnecessary duplication
8 of effort and expense. CANTDU, as the senior group,
9 agreed to co-ordinate these efforts.

10 We respectfully submit to your
11 Commission, Mr. Chairman, this request for funding.
12 We hope you will be able to give it your favourable
13 consideration.

14 THE CHAIRMAN: Thank you very much,
15 Mr. McKee. Reference is made to the funding paper
16 which is in the kits and we are glad to see that you
17 are planning on co-operating and co-ordinating your
18 efforts with other groups.

19 The funding budget has not been
20 established. We are receiving applications now. We
21 think that there is little likelihood of the funding
22 covering your full costs; we are sure it will help
23 substantially.

24 We would like to see as many groups
25 join their efforts and co-operate as possible.

Mr. McKee, we are further pleased to



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1 know that you plan to submit a formal presentation
2 when formal hearings commence.

3 Are there any questions?

4 DR. STEVENSON: I think, Mr. McKee,
5 your group has been in existence for some time and I
6 know you have spent a lot of effort in trying to
7 understand the CANDU process and to appreciate the
8 problems of nuclear waste disposal, et cetera; but if
9 there is anything that our Commission staff can do to
10 assist you in certain areas of your enquiries that
11 may still be puzzles to you, I would just simply like
12 to offer their services.

13 We do have a Director of Research and
14 a small staff. We will be commissioning some research
15 studies of our own and some of them will have to do
16 I know, with this very, very difficult question of
17 radioactive waste disposal. This is an area in
18 which the experts are by no means agreed and we
19 certainly want to share with you what we establish in
20 this area and we would like you to let us know what
21 your researchers have found.

22 I am sure you will keep in touch. I
23 am merely inviting you to do so.

24 MR. MCKEE: Thank you very much.

25 THE CHAIRMAN: Thank you very much,
Mr. McKee.



2-1 1 Marilyn Penfold. Mrs. Penfold has
2 a personal submission.

3 MRS. MARILYN PENFOLD: Mr. Chairman,
4 Members of the Commission, Ladies and Gentlemen: while
5 I am a member of CANTDU, it is more from the point
6 of view of a concerned mother that I am making this
7 submission tonight.

8 CANTDU's position regarding high level
9 waste storage and radioactive emissions is mine also.
10 The problem of what to do with spent fuel rods has
11 not been solved. I believe it is wrong to pass this
12 legacy on to future generations. Because we are
13 already being exposed to radiation from a variety of
14 sources is no justification for increasing that
15 exposure, particularly when we are aware of possible
16 adverse effects over time.

17 I would like to know more about the
18 implications of thermal pollution by all the proposed
19 power plants, nuclear or otherwise, both American and
20 Canadian, on our Great Lakes system.

21 The life expectancy of nuclear power
22 plants is, according to Hydro officials, in the neighbour-
23 hood of thirty to fifty years, after which time they
24 have to be shut down due to radiation levels. Then
25 what? Will they have to be guarded and monitored



2-2 1 against possible radiation leakage?

2 What is the real cost of nuclear power?

3 Has liability insurance, which is assumed by the
4 Federal Government, storage and monitoring of wastes,
5 and the life expectancy of plants been taken into
6 consideration?

7 Why aren't more funds being allocated
8 for research into alternative energy sources?

9 According to Hydro officials, solar power isn't feasible
10 at present but is it any wonder when the Federal Depart-
11 ment of Energy, Mines and Resources in 1974-75 planned
12 to spend less than \$500,000 on energy research of all
13 kinds excepting coal, oil, gas and nuclear power?
14 This contrasts sharply with the U.S.A.'s \$82,000
15 budget last year for solar power research plus a
16 one billion dollar commitment over five years beginning
17 in September 1974.

18 We can no longer speak of energy, no
19 matter what the source, without considering conser-
20 vation. Our resources are finite. I would like to
21 know how effective various conservation measures are
22 in all areas - domestic, commercial and industrial.

23 Finally I think we must consider the
24 growth ethic. Is it feasible to think in terms of
25 no growth as opposed to unlimited growth? Hydro



2-3 1 speaks of our energy demands doubling every ten years,
2 but this is an exponential curve which eventually
3 becomes an impossibility. What will be the effects
4 on society if limited or no growth becomes the norm?
5 Public meetings and submissions are, I think, meaning-
6 ful methods of information gathering. However,
7 researchers and educators could also be considered for
8 sources of information.

9 The results of the Commission's
10 investigations should be made available to both the
11 general public and to the politicians via free
12 publications as well as the conventional media -
13 newspapers, television and radio. Only when all the
14 information is published by a body with no vested
15 interests and made readily available, will the public
16 be fully informed concerning electric power.

17 Thank you very much.

18 THE CHAIRMAN: Thank you very much,
19 Mrs. Penfold. We agree that there will be a good deal
20 of research required into the study by the Commission
21 and by interest groups. We do think public meetings,
22 as you have indicated ~~are~~ an excellent source of
23 getting information and points of view from the public.

24 You have stated that we can no longer
25 speak of energy, no matter what the source, without



2-4 1 considering conservation. Have you some suggestions?
2 I wonder if we must not take a very hard look at the
3 matter of conservation. Have you some proposals
4 whereby we should as a community be taking action
5 in conservation.

6 MRS. PENFOLD: Well, these are my
7 personal opinions. I think that perhaps^{if}/Hydro could
8 reverse its rate structure it might be an incentive
9 to some people. The more you use at the moment the
10 cheaper it is. I think that would help.

11 I think my idea might be radical by
12 our present standards but I think that perhaps if
13 we were each allotted an energy quota over which the
14 cost became quite a bit higher then each person could
15 choose within a range, according to his particular
16 value system.

17 Those are the two that come to mind at
18 the moment.

19 THE CHAIRMAN: You expressed concern
20 with respect to safety. Would you care to comment
21 on that, Dr. Stevenson?

22 DR. STEVENSON: Probably not, George,
23 this being a matter basically I guess of engineering
24 and possibly health physics, both of which are not
25 my field. I am a sort of a money man, I am an



2-5 1 Economist but I do have a comment, Mrs. Penfold.

2 I believe you are the first person
3 to raise the issue of what to do / with a nuclear power
4 station when it can't be used any more. What happens
5 when it wears out? Your information from Hydro I
6 take it is that there is a 30 to 50-year life at which
7 point, presumably, there is enough radio-active
8 build-up in the concrete and the plant itself that
9 it is no longer able to be used.

10 MRS. PENFOLD: I think it is within
11 the reactor itself; it doesn't include the whole
12 building but the reactor that is housed by the building.
13 But it is my understanding that after a certain period
14 of time it can no longer be used because of radio-
15 active build-up.

16 There are Hydro officials here in the
17 audience. Perhaps they can clarify this for me.

18 DR. STEVENSON: I think that our
19 experience with Ontario Hydro is that they would
20 prefer to wait until their turn comes. They will be
21 making submissions to us in public hearings possibly
22 in the Spring and will deal with those questions which
23 we will, however, record in our report as people like
24 you bring them to our attention. So I thank you for
25 raising that one. It is a very interesting one, indeed.



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The other comment I wish to make was about your suggestion that we make our research publicly available. Each kit contains an issue 1 of Contact, a very cheap newsletter. We hope to produce thousands of copies of these when we have something important to say on a matter that we have researched and we hope to distribute these widely in the Province and help to thereby raise the level of public understanding of some of these technical questions.

MR. COSTELLO: Mrs. Penfold, I was not aware that the life of these plants is limited due to the fact that the plant reaches a radiation level which forces it to be shut down. I had assumed, from my experience in industry, that after about 30 to 50 years the boilers, and these are using steam boilers, that is the end of their effective life. I would be interested in finding out if I am right or you are right.

One other point, this reversing the rate structure for Hydro of course has come up before, as I am sure you know, and there have been a number of other suggestions. Part of the problem really then with that suggestion is that there are poor families that are large users of electricity; that there are other ways of getting at it - tax credits;



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1 maybe.

2 One thing George did forget to say,
3 and he doesn't forget very much, is the fact that all
4 the kits have a form in there to be filled out. If
5 you want to get on our mailing list so that you get
6 up-to-date copies of the publication that Bill showed
7 there and other information, we will be issuing reports
8 probably in February summarizing the results of these
9 primary meetings and that will be a public report of
10 course. So it is important that you do fill out the
11 form in these kits and leave them with us here or
12 with Bob Rosehart and we will get you on our mailing
13 list when the postmen go back to work.

14 Thank you very much.

15 THE CHAIRMAN: Thank you, Mrs. Penfold.

16 The next submission will be headed by
17 Lloyd Moore. This group we congratulate. There are
18 seven organizations that are participating in this
19 presentation and Lloyd Moore is heading it up.

20 MR. LLOYD MOORE: Mr. Chairman, Members
21 of the Commission, Ladies and Gentlemen. I am
22 Chairman of the Concerned Farmers of the United
23 Townships, and after almost two years of continually
24 requesting an independent hearing on the "southern"
25 proposed 500 kV hydro transmission line between Bruce



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1 Generating Station and Georgetown, we are quite happy
2 to be able to participate in these preliminary hearings.
3 We felt that if the hearings were not taken out of
4 Ontario Hydro's hand it would be the same as letting
5 the fox look after the chicken coup.

6 You see before us here a soils map
7 we have of Ontario. It shows where the Class 1 to
8 7 soils are and what happens to farm yields as you
9 go on to poor soil. It is 1, 100%; 2, 77%; 3, 59%
10 and 4, 43%. I won't dwell any longer on that. We
11 could spend the whole evening on it, but maybe after
12 the meeting people who have not seen our map of
13 soils of Ontario will be interested in looking at it.

14 I would like to apologize for the
15 poor state our soils map of Ontario is in. We seem
16 unable to replace it and hope it will last until your
17 Royal Commission is over. The part that really bothers
18 us is the fact, the way we are destroying our top
19 food lands that cannot be replaced and must last
20 well beyond the life of the Royal Commission on
21 Electric Power Planning.

22 The Concerned Farmers of the United
23 Townships of Turnberry, Howick, Wallace, Maryborough,
24 Peel, Woolwich and Pilkington, were formed as a joint
25 effort, after most of these townships had elected



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1 their own committees. We felt that we would be more
2 effective to all work together and research our
3 problems as one united group rather than several smaller
4 groups. The concerns developed when we found out
5 Ontario Hydro's plans of producing large quantities of
6 power at Bruce Generating Station that was intended for
7 use east of the escarpment, in the Toronto, Hamilton
8 and etc. We wanted to know why Hydro proposed a
9 transmission route that was approximately 23 miles
10 longer while crossing top producing agricultural land.
11 We could not understand how two 500 kV bulk trans-
12 mission lines could come out of Bruce Generating
13 Station to Wingham, and then continue on with three
14 500 kV bulk transmission lines from Wingham to
15 Kitchener. Then we found out about the proposed
16 Hydro Generating Station south of Goderich, on prime
17 "Foodlands", that Ontario Hydro would build if the
18 longer "southern" transmission route was approved.
19 This south of Goderich Generating Station would also
20 necessitate the building of more 500 kV transmission
21 lines on prime agricultural land. Two lines would be
22 required from Goderich Generating Station to Wingham
23 and two more transmission lines would be built from
24 Goderich Generating Station to London.

25 Last Friday I had the personal experience



2-10 1 of attending an Electrical Effects Demonstration put
2 on by Walter Incas of Ontario Hydro. This demonstra-
3 tion was carried out in the Barrie area where Ontario
4 Hydro at present has two 500 kV transmission lines
5 but strung with only half as many wires, called
6 single strung, as the ones proposed out of the
7 Bruce Generating Station.

8 The power is now flowing north through
9 these lines to feed Northern Ontario. Although I was
10 unable to find out at what percent of total capacity
11 these lines were operating, it was agreed the load
12 that day was small but as Friday afternoon drew on
13 the weather turned considerably colder, which I
14 believe was the same case in Northern Ontario,
15 causing some more power to be fed through these lines
16 as the winter heavier load requires. Whatever the
17 reason, I found that I was no longer able to touch
18 the door of the demonstration trailer while standing
19 on the ground, because of the terrific shock. The
20 trailer had to be grounded before we could use it.

21 The demonstration was good in showing
22 the effects to objects under or near a high voltage
23 transmission line. We saw the actual sparks that
24 would occur under normal refueling a tractor that
25 had run dry under a transmission line. Ontario Hydro



2-11 1 claims that there is a slight nuisance shock trans-
2 mitted to objects near or under the lines. I would
3 like to tell you if everyone in this room was to
4 of
5 receive the amount / shock right now as I did last
6 Friday, the room would be cleared in a hurry. You
7 can imagine the problems of farming under double strung
8 500 kV transmission lines if the conditions were
9 right, when using horses, using large machinery,
10 refueling under the lines, burning trash under the
11 lines or grazing livestock.

12 Commissioners, for the sake of our
13 Foodlands, a thorough study and research must be carried
14 out, independently of Hydro, of the area affected,
15 before a decision is made on the expansion of Bruce,
16 the need for a "southerly" 500 kV transmission line
17 route out of Bruce and its related Goderich
18 Generating Station.

19 Thank you.

20 Now because there are seven different
21 organizations here I would like to start off by
22 introducing George Adams of Turnberry Township.

23 THE CHAIRMAN: Yes, Mr. Adams.

24 MR. GEORGE ADAMS: Mr. Chairman,
25 Commissioners, Ladies and Gentlemen.

I am George Adams of Turnberry Township.



2-12 1 Turnberry Township has been presented
2 with a 230kV line which is now in the process of being
3 connected to the Bruce Generating Station.

4 The Huron-Bruce Corridor Committee
5 suggested an alternative route which was over much
6 lower class land and shorter in length. This was re-
7 jected by Ontario Hydro at the hearing of necessity
8 in Wingham.

9 Ontario Hydro placed this 230kV Bruce
10 to Seaforth line on the better land to force a longer
11 "southern" route for two to three 500kV transmission
12 lines from Bruce to Georgetown. This 500kV transmission
13 line in its full length would cross over much of the
14 limited amount of top producing foodland we have in
15 Ontario. In Turnberry Township / 500 kV proposed
16 lines would parallel the 230 kV line now nearing
17 service. If the proposed "southern" 500kV transmission
18 lines are to be built, in our opinion they would force
19 a hydro generating station south of Goderich, also on
20 good agricultural land. We have now one mistake, let's
21 not make two more.

22 What is the real total impact of putting
23 multi-line corridors and generating stations on this
24 productive land?

25 THE CHAIRMAN: Thank you.

MR. MOORE: I would like to now intro-



2-13 1 duce Harry Winkel of Howick Township.

2 THE CHAIRMAN: Mr. Winkel.

3 MR. HARRY WINKEL: Mr. Chairman and
4 Commissioners. I am Harry Winkel of Howick Township.
5 The erection of transmission towers in top producing
6 foodlands will make farming operations dangerous
7 and inefficient, especially with the use of modern
8 large machinery contemplated; and what about tomorrow.
9 The large liability that can arise with damage to
10 the tower can add stress to the farmer and can
11 produce medical problems at various times.

12 A lot of farming is done on a rotation
13 basis meaning that the type of crop grown may change
14 from year to year. Each crop requires different
15 types of operations resulting in having to manoeuvre
16 around the towers if possible six to twelve times.

17 The use of aircraft is becoming more
18 and more popular to apply chemical fertilizer, et
19 cetera, especially in wet seasons and the erection
20 of such towers will prohibit this operation.

21 We request that the Commission investi-
22 gate thoroughly these problems.

23 Thank you.

24 MR. MOORE: I would like to introduce
25 now Bruce Sheik of Maryborough Township.

 MR. SHEIK: Mr Chairman, Commissioners,



1 Ladies and Gentlemen.

2 The last big track of untouched
3 agricultural land left in Ontario is situated in
4 the area directly effected by Hydro's "southern"
5 proposed transmission line route, its connections to
6 London and the proposed Central Lake Huron Generating
7 Station south of Goderich. This last big track of
8 land is unique because:

9 It has never had a crop failure.

10 It is situated close to the markets
11 (cheaper transportation) and with the cost of fuel
12 nowadays, Ladies and Gentlemen, this is very important.

13 It produces approximately half of
14 Ontario's food production.

15 Land prices are such as to allow a
16 profit in food production.

17 Pollution is not that great, that
18 many crops that are susceptible to air pollution,
19 can still be grown.

20 In general, farming is still a full-
21 time occupation for the owner.

22 This is a financially independent,
23 well balanced agricultural community, and the tax
24 structure is still agriculturally oriented and has
25 not yet been seriously affected by development.



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MR. MOORE: I introduce to you Elan Metzger from Peel Township.

MR. METZGER: Thank you, Lloyd.

Mr. Chairman, Commissioners, Ladies and Gentlemen. I want to thank you, Mr. Chairman, for the opportunity to participate at this level.

Today there are 3.9 billion mouths to feed. Tomorrow, an additional 203,000. Next year 74 million more. Until recently we met expanding needs by pushing back the farm frontier. But today almost all of the world's land that is economical to cultivate - approximately 3.6 billion acres - is already being used.

People tend to forget that the most important event on earth each year is the harvest.

From a position of almost unwanted abundance, the world in a few short years has seen its food reserves drawn down to only a few weeks supply. The International Cupboard is nearly bare.

By May 1974 the United Nations and Social Council had concluded that, though "history records more acute shortages in individual countries .. it is doubtful whether such a critical food situation has ever been so world wide."

In Ontario only 10.57 million acres of



2-16

1 our land is class 1 and 2 and not all of it is in
2 climatic favourable areas for food production.
3 Ontario also has 121 Provincial Parks which occupy
4 10.34 million acres, but this represents just one-
5 third of the Province's recreational land.

6 We conclude that it is morally wrong
7 to exchange our good food lands for development and
8 not preserve it for our future generations, when so
9 much land is available without destroying our
10 agricultural land.

11 You will note, Mr. Chairman, that I
12 did not project population growth to 15 or 20 years.
13 I did not want to shock the audience.

14 THE CHAIRMAN: Thank you very much,
15 Mr. Metzger, for a very thoughtful presentation.

16 MR. MOORE: Next I would like to
17 introduce Carl Detwiller from Woolwich Township.

18 MR. DETWILLER: Mr. Chairman,
19 Commissioners, Ladies and Gentlemen:

20 We question the need for more hydro
21 lines for Kitchener. At present Kitchener area is
22 connected with four 230kV lines. The Kitchener to
23 Seaforth line now feeds a small amount of power to
24 the area including Stratford, Seaforth, Goderich, etc.
25 This 230 kV line is now being connected to Bruce



2-17 1 Generating Station and will be able, under normal
2 conditions, to supply the entire needs of the area
3 of London, Kitchener, Cambridge, Guelph, Stratford,
4 Goderich, etc.

5 The 230 kV line from Kitchener to
6 Orangeville is at present being rebuilt so that it
7 will carry more power, when power starts to flow from
8 Bruce Generating Station to Orangeville; thus more power
9 to Kitchener. At present, power is being fed from
10 Kitchener to Fergus, Orangeville etc., but when Bruce
11 Generating Station starts producing, this 230 kV line
12 will be able to reverse its flow and feed power to
13 the Kitchener area.

14 The London to Kitchener 230 kV line could
15 also be reversed and feed Kitchener if London and
16 Nanticoke are connected with a 500 kV line.

17 A year ago we received estimates from
18 Ontario Hydro for last December's peak power require-
19 ments for the Kitchener area. These requirements
20 indicated that December 1974 peak load for the Kitchener
21 area would primarily come from the Niagara Kitchener
22 230 kV line.

23 In addition to this Ontario Hydro
24 is reporting three 500 kV lines to a 250-acre trans-
25 former station known as the Kitchener area transformer



2-18

1 station no. 76.

2 In the Official Plan being prepared
3 for the rural region, a growth rate of 3% per year
4 is recommended. With or without a controlled growth
5 rate there will be more Hydro passing through these
6 lines than our region could ever use. We therefore
7 conclude the ultimate goal of Ontario Hydro will be
8 to continue these lines in the future for export
9 purposes.

10 So much of our country is financed
11 and controlled through foreign investment, Canadians
12 are losing their heritage. Good Ontario farmland
13 belongs to our sons and daughters and must not be
14 sacrificed like many other of our natural resources
15 for bane trivialities.

16 We realize Ontario Hydro is building
17 for the future. We ask, whose future?

18 THE CHAIRMAN: Thank you.

19 MR. MOORE: I would like to introduce
20 Mr. Alec Mackintosh from Pilkington Township.

21 MR. MACKINTOSH: Mr. Chairman,
22 Commissioners, Ladies and Gentlemen:

23 To the Royal Commission on Electric
24 Power Planning, the agricultural community is very
25 concerned how Ontario Hydro is steering development in



2-19 1 the Province. The damage that Hydro Generating
2 Stations and Transmission lines cause seem small to
3 the damage their shadow will have on Foodlands. Take
4 for example Nanticoke where so much heavy industry
5 seems to have been attracted to Nanticoke Generating
6 Station that now two cities the size of London, Ontario
7 are to be built.

8 We read in the London Free Press of
9 November 11th, 1975 that Ontario Hydro has given
10 One Million Dollars to compensate for the adverse
11 impact on the local communities around the Bruce
12 Generating Station. Will this pay for the real
13 impact on food production in future generations?

14 Thank you.

15 MR. MOORE: ~~Last~~ is Eldon Vines of
16 Wallace Township.

17 THE CHAIRMAN: Mr. Vines.

18 MR. ELDON VINES: Mr. Chairman,
19 Commissioners, and Ladies and Gentlemen:

20 I am Eldon Vines, you might say a
21 very concerned Wallace Township Farmer.

22 Out of the 53 counties and districts
23 in Ontario, eight food producing counties make
24 up approximately 2% of the land mass in the Province.
25 The counties of Bruce, Huron, Perth, Lampton, Waterloo,



2-20 1 Wellington, Middlesex and Oxford produced the
2 following in 1973:

3 48% of the total barley grown in
4 Ontario; 59% of the total mixed grain grown in Ontario;
5 83% of the total dry beans grown in Ontario; 46% of
6 the shelled corn grown in Ontario; 50% of the cattle
7 marketed in Ontario; 63% of the hogs marketed in
8 Ontario.

9 These figures were obtained from
10 Agricultural Statistics for Ontario 1973, Publication
11 20, produced by the Ontario Ministry of Agriculture
12 and Food.

13 Ontario Hydro's proposed Goderich
14 Generating Station, the proposed "southern" 500 kV
15 transmission route and what they will attract, will
16 effect these eight counties that produce approximately
17 one half of Ontario's food.

18 At this time Wallace Township is in
19 the midst of planning and we feel that a land use
20 policy by our Government would be a great help to
21 all.

22 Must the agricultural community
23 continue to subsidize, even to our land?

24 Thank you.

25 THE CHAIRMAN: Thank you, Mr. Vines.



1 MR. MOORE: Mr. Chairman, and
2 Commissioners, that is the end of our presentation.

3 THE CHAIRMAN: I am going to once
4 again compliment you on joining forces in your
5 presentation. You have raised many, many questions
6 and we have an additional four submissions that have
7 come in since the meeting opened so that any questions
8 any time we take as Commissioners will be limiting the
9 discussion at the end, but Bill, or Bob, have you any
10 questions in particular you would like to ask.

11 There is one brief question I have.
12 The Pilkington Township submission, the first
13 sentence "The agricultural community is very concerned
14 how Ontario Hydro is steering development in the
15 Province." Could we have a little elaboration on
16 that?

17 MR. MOORE: Could I answer that, being
18 at the mike?

19 THE CHAIRMAN: Yes.

20 MR. MOORE: At Nanticoke we first
21 had a generating plant and we had heavy industry
22 come in there and now Mr. White announced two cities
23 the size of London, Ontario. We wonder if that was
24 not to put somewhere else, you know, on poor land,
25 if we could not have this development on poor land.



-22

1 Just take, for instance, Bruce -
2 has Bruce ever changed the towns around there.

3 If this was in another area instead
4 of good land, maybe where they need development, it
5 would help the whole situation in planning the
6 province because you would get development where it
7 is really needed, not on the good land.

8 DR. STEVENSON: Too bad, isn't it, that
9 sometimes events seem to conspire against the use
10 of Class 1 land. I think at Nanticoke part of the
11 reason that Stelco wants to put a mill there is
12 because of the accessibility to water and therefore
13 to coal by boat from the States. Even so, I suppose
14 you would argue surely that there must be another
15 point along the waterways.

16 MR. MOORE: We have got an awful lot
17 of water in Ontario.

18 DR. STEVENSON: I don't have the
19 answer.

20 MR. MOORE: Thank you very much. I
21 realize you are cramped for time and I don't want to
22 take up too much of your time.

23 THE CHAIRMAN: Thank you very much,
24 gentlemen.

25



1 Mr.Lorne Murray, Reeve of Maryborough
2 Township.

3 MR. MURRAY: Thank you, Mr. Chairman;
4 Commissioners, ladies and gentlemen.

5 I am Lorne Murray, Reeve of the
6 Township of Maryborough and also a member of the
7 Concerned Farmers of the United Townships. I would
8 briefly like to draw to your attention the following
9 points:

10 This proposed major Hydro Corridor
11 coming down through our area would disrupt agriculture
12 in a way detrimental to the production of food.

13 Only 7½% of our assessment is classed
14 as Industrial Commercial in Maryborough Township.
15 Over 90% of the land in Maryborough Township is
16 classed as #1 and #2 agricultural land according to
17 the Wellington County Planner Roger Truemner and to
18 our A.R.D.A. land use maps.

19 Tile drain loans in our township
20 have tripled in the last four years, indicating that
21 farmers are increasingly concerned with getting the
22 utmost productivity from their land.

23 As far back as 1968 Maryborough
24 Township had as many as 28 Municipal Drains being
25 constructed in various stages at one time, and at
present we have approximately 180 Municipal Drains in
the township.



3/2

1 Many farmers in the township received
2 one-third grants from the Provincial Government to
3 remove fence rows and brush to enlarge fields, now
4 Hydro wants to cut them up again by putting Hydro
5 Corridors through them.

6 Since 1950 there has been a large
7 influx of Duth immigrants and also a large number of
8 Mennonites from Waterloo County. These people are
9 very agriculturally oriented and devote all their
10 energy to farming.

11 The farmers in our area are full time
12 farmers and we have an increasing number of young
13 farmers interested in a future in agriculture in
14 spite of the enormous debt they are obligated to incur
15 in order to get into business. The average price of
16 land in this area is approximately \$1,000 an acre.

17 We in Maryborough Township have a
18 proposed official plan with zoning regulations to
19 prohibit strip housing and also a second severance
20 off a farm property is virtually impossible except in
21 a case where a second residence is needed to operate
22 a viable unit; for example to provide housing for a
23 partner or son in the business.

24 I am a member of the Grand River
25 Conservation Authority and of the Maitland Valley
Conservation Authority which encompass land from Lake



Murray

3/3

1 Huron to Lake Erie and in this capacity I have worked
2 on many major projects. Since the Government has
3 brought in its Green Paper we have been compelled
4 to have studies on the Environmental Impact on these
5 areas in any proposed project. To my knowledge a
6 complete independent Environmental Impact study has
7 not been done on these proposed Hydro Corridors.

8 Thank you, gentlemen and I will try
9 to answer any questions you have.

10 THE CHAIRMAN: Thank you, Mr. Murray.

11 I was talking to a chap the other
12 day - is it right that it costs about \$300 an acre
13 to adequately drain -- is that a correct figure?

14 MR. MURRAY: Well, it runs around
15 \$400 to systematically drain.

16 THE CHAIRMAN: \$400 an acre?

17 MR. MURRAY: \$400 an acre.

18 DR. STEVENSON: I'm interested in your
19 comment about the environmental assessment at which
20 I take it is the legislation that you are referring to,
21 Mr. Murray. I have been reading a copy these last
22 few days.

23 I guess the regulations that will
24 spell out the projects requiring environmental impact
25 statements have yet to be drawn, as I understand it,
so we won't really know whether transmission corridors



Murray

3/4

1 will require such a statement but your point would be
2 that they should, in any event.

3 MR. MURRAY: They certainly should
4 road widening, they qualify for it in certain areas;
5 bridges to be constructed just over a stream; and just
6 as late as last Friday I sat on a Committee that we
7 did interview consultant firms for an environmental
8 impact study on the (inaudible). The whole proposal
9 has to be broken down.

10 DR. STEVENSON: Can you suggest a
11 practical limit above which an assessment might be made
12 mandatory and below which one might not be needed?

13 MR. MURRAY: I would hate to suggest
14 any figure. There are quite a few people with Doctor's
15 degrees in the audience.

16 DR. STEVENSON: Thank you very much,
17 Mr. Murray. That is a very valid and interesting and
18 new point for this Commission.

19 MR. COSTELLO: I understand, Mr.
20 Murray, that the Environmental Impact Act will be
21 promulgated in about ten months from now. I am pretty
22 sure - I can't quote the government, this is my own
23 opinion, but I am pretty sure that things like major
24 power lines will come under it, certainly on the
25 industrial side. The size of the project really does
not have too much bearing. It is what the impact is



Murray

3/5

1 on the environment that is the key thing. It could be
2 a financially small capital investment but if it does
3 affect the ecology in the area they would certainly get
4 after that and spend a fair amount of time on it.

5 THE CHAIRMAN: Thank you, Mr. Murray.
6 The next presentation is from Dr. MacKay of the
7 Listowel Veterinary Clinic.

8 DR. A.L. MacKAY: Mr. Chairman, members
9 of the Commission, ladies and gentlemen:

10 The following opinions are those
11 expressed by the five veterinarians of the Listowel
12 Veterinary Clinic serving the farming community in
13 adjacent portions of Perth, Wellington and Huron
14 Counties.

15 Our first concern lies with the
16 preservation of agricultural land and its future use.
17 As has been previously mentioned tonight eight
18 counties would be directly affected by a proposed
19 generating station situated south of Goderick and/or
20 transmission corridors from such a plant as well as
21 those from the existing Bruce Nuclear Power Station.
22 These eight counties, forming 2% of the total land
23 mass of Ontario, in 1973, accounted for 35% of
24 Ontario's total milk production; 50% of Ontario's total
25 market cattle; and 62.7% of Ontario's total market
hogs. These are notable figures and we are proud of



1 them.

2 There are no less than fifty-four full
3 time general practice veterinarians with a thirty
4 mile radius of Listowel. This does not include Health
5 of Animals regulatory veterinarians. This in itself
6 is an indication of the excellent quality and
7 concentration of agriculture in this area. No other
8 area in Ontario requires this concentration of
9 professional service; in fact, at least four provinces
10 in Canada require fewer veterinarians to service their
11 entire province.

12 The National News last week carried
13 the reported slaughter of thousands of hogs and
14 poultry in the USSR due to grain shortages. It is a
15 known fact that Russia already purchases as much grain
16 as the Western World can safely allow. There are Third
17 World Countries with yet more urgent needs for our
18 grain and food products than Russia. As Canada sees
19 greater obligation to assist the starving Third
20 World population, this portion of Ontario most surely
21 becomes an essential supplier not only to Ontario and
22 Canada, but to the rest of the world. We must not
23 merely produce food products for profit. We have a
24 duty, a moral obligation, to utilize Class 1 and 2
25 agricultural land in the limited areas where it can be
found. This land must not be removed from agriculture.



1 The Association of Major Power

2 Consumers of Ontario (AMPCO) representing over forty
3 power intensive industries suggests Ontario Hydro can
4 in fact fight inflation as well as reduce its rate
5 of expansion. Referring to Ontario Hydro's standard
6 of service reliability, AMPCO suggests, and I quote,
7 "Its customers may well have to accept lesser standards
8 of service in the future." "This is the price
9 industry is willing to pay in order that the dual
10 objectives of energy conservation and anti-inflation
11 are achieved." When industry, with its high cost of
12 overhead, starts taking this approach, surely we as
13 individuals can accept the inconveniences of minor
14 service interruptions. Hydro's rate of expansion
15 could be slowed, minimizing loss of land and decreasing
16 construction expense.

17 After two years of asking for a
18 hearing body such as this, the people of this area
19 are most grateful at having been granted one. We
20 would like to challenge this Commission to find a
21 suitable alternative in supplying our energy needs
22 without the disruption and total destruction of our
23 irreplaceable agricultural land.

24 Thank you.

25 THE CHAIRMAN: Thank you Dr. MacKay.

There is so much support for this



8
1 matter of saving and conserving our top land, there
2 is just no question that the total population of
3 Ontario is becoming aware of it and it is interesting
4 to get presentations from cities running along somewhat
5 the same vein.

6 On this point of reliability, Dr.
7 MacKay, what importance do you attach to the reserves
8 or the more or less complete reliability that we
9 have enjoyed? What limitations can we put on
10 reserves at the sacrifice of reliability?

11 DR. MacKAY: I would presume that
12 everyone has their opinion to that. Mine personally,
13 we unfortunately, I don't want to suggest that we are
14 not obtaining good service in our own particular area
15 but we apparently are on one of the weaker lines. We
16 have experienced, I suppose, at least three
17 interruptions each year in the past three years. I
18 would say they have averaged four or five hours
19 duration each time. Certainly, this is an
20 inconvenience, but we are still here. I think you
21 have to weigh inconveniences against possibilities of
22 future generations, maybe our own children, being
23 inconvenienced and when we look at television, what
24 we see on television, Bangladesh and so on.

25 I don't certainly foresee or hope
that that will ever occur here, but maybe in a more



1 moderate form, and I think this should be a concern.

2 We are so far removed from the areas
3 that are in this type of situation now I think we are
4 selfish, maybe. Maybe we should be assisting them
5 right now. Certainly we will not be in a position to
6 if we don't have our agricultural land, and I think
7 this is what is going to happen.

8 THE CHAIRMAN: Any questions from
9 the Commissioners?

10 DR. STEVENSON: Just really a follow-up
11 to yours, George. This is one of the key questions
12 for this Commission, the costs of maintaining the
13 reserve margin Ontario Hydro maintains are very high.
14 The question of establishing just how much the
15 consuming Hydro customers are prepared to sacrifice
16 by way of reliability in order to lower his costs and
17 therefore partly reduce the need for these transmission
18 corridors and stations is one that I think will probably
19 take us right through this Commission and I hope that
20 the farmers here in the audience tonight will perhaps
21 think about that and maybe help us either tonight or
22 in comments that you make at the bottom of your
23 information sheets when you fill it out, give us some
24 idea what the reliability of the electricity supply
25 means to you. If you are a broiler operator, what
does an outage cost you.



10 1 We think we will get back to you with
2 questionnaires on this point. It is not something we
3 are going to cover completely tonight but I hope you
4 will think about it and let the Commission know what
5 you think about the value of reliability.

6 DR. MacKAY: I am sure that every
7 farmer present would agree as everybody else, ourselves
8 included, rely very much on hydro. We can't do without
9 it; we should not have to do without it; but here
10 again most farmers accept the fact that nature some-
11 times takes lines down and there is an increasing
12 number of farmers that are willing to go to the
13 expenditure ^{of} installing generators and this sort of
14 thing for such emergencies and I don't think really
15 that you would find very many farmers balking at
16 reducing the reliability of service that we get,
17 certainly not so it is half the time or something of
18 that nature, I think it has to be within reason, but
19 here again we have a high capital expense, farmers have
20 a high capital expense, but in proportion to industry
21 maybe not any more than them, and if they are willing
22 to accept a little lower standard, if their hydro is
23 off how many hundred workers are out of work and are
24 still being paid standing there? Surely to goodness
25 we can put up with mild inconvenience if they can. I
think they should be commended for setting an example.



.11 1 MR. COSTELLO: Doctor, I come from
2 the industrial side and of course I agree with you.
3 This whole reliability question is a very key one,
4 I am sure, and it is going to give us a lot of
5 problems. I am playing devil's advocate here, if
6 you are living on the 27th storey of a big tower
7 apartment building in Toronto and you have a 5-hour
8 power shortage, you really do have some problems. In
9 our bigger hospitals, I think they tend to protect
10 themselves with emergency generation but personally I
11 think from the industrial side we could do with more
12 interruption. We tend to get them anyhow. You don't
13 get as many in Toronto as you do up North

kr 14 DR. MacKAY: Many of the hospitals I
15 know of have their own power unit so I don't think
16 the essential services are affected.

17 MR. COSTELLO: Homes for the aged is
18 another one.

19 DR. MacKAY: That is correct. So possibly,
20 as far as this is concerned, elevators that can become stuck
21 between floors could have their own small generators
22 installed. If farmers accept it, why can't large
23 construction firms? I can't see why this is a problem.
24 I just think it has to take a little different
25 thinking, a different approach.

THE CHAIRMAN: Dr. MacKay, in the area



3.12

1 that you are most familiar with, what percentage of
2 the farmers have their own generation - auxilliary
3 system.

4 DR. MacKAY: I would not be prepared
5 to answer that, but several, and more each year and
6 within the farm community I think that is the area
7 where you will get more or at least as much co-operation
8 as any other community and it is not uncommon for
9 several farmers to go together and have the connections
10 there so that a farmer comes down and uses the generation
11 to water his cattle and then goes on to the next farm.
12 I really would not be able to say what percentage.

13 THE CHAIRMAN: Dr. MacKay, thank you
14 very much.

15 Dean Clarke is our next guest.

16 Dean, how are you tonight?

17 MR. CLARKE: Fine.

18 THE CHAIRMAN: You have the floor.

19 MR. CLARKE: Mr. Chairman, commissioners,
20 ladies and gentlemen, being brought up in the town
21 of Listowel in the heart of Ontario's foodlands, I wonder
22 what the change in the future will bring to our
23 farmlands.

24 Will our agricultural land be preserved
25 to meet the growing demand for food in Canada and
worldwide made by our ever increasing population; or



Clarke

1 will progress eat up our foodlands with generating
2 stations, transmission lines, highways, big food companies,
3 city people who want weekend retreats and many other
4 developments.

5 Granted we will likely have lots to eat,
6 but what about my children?

7 From my way of thinking I would say
8 there are large areas where development is needed. This
9 development could give all the advantages of what is
10 required for the modern day living.

11 We want and need food and we certainly
12 need Hydro but there is no way we can exchange one for
13 the other.

14 Thank you.

15 THE CHAIRMAN: We will give you 100
16 percent for that presentation.

17 Dean, what grade are you in?

18 MR. CLARKE: In grade eight.

19 THE CHAIRMAN: I am sure if our Chairman
20 were here he would be tickled to death because this is
21 the kind of participation he is hoping to get from the
22 young people in our country, and, Dean, you are of the
23 age group that we are very much concerned about and you
24 are quite right in thinking about yourself and your
25 children. This goes a long way into the future.

 Bill, I am sure you will have some question



or comment to make.

3.14 1 DR. STEVENSON: I am just thinking, Dean,
2 you are probably the youngest student that has ever
3 appeared before this Commission and perhaps the ^{second} /youngest
4 was an Indian girl up in Sudbury from Manitoulin Island
5 and this little girl was telling us what a nuclear
6 power station next door to her reserve would mean to the
7 way of life of the Indians and let me tell you when she
8 finished her little five minute talk there wasn't a
9 dry eye in the room and I am sure a lot of Hydro people
10 were wondering what on earth ever gave them reason to
11 think they could put a nuclear power station at that
12 location.

13 It was really a very powerful presentation,
14 but no more so than your own, so congratulations for
15 coming out tonight.

16 MR. COSTELLO: Dean, I am sure your
17 parents are very proud of you; I certainly would be.

18 THE CHAIRMAN: Thank you very much,
19 Dean.

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21 - - - - -
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DP:yk

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The next speaker is Mr. Harry Hayter,

2

representative of the Huron County Beef Improvement

3

Association. Mr. Hayter.

4

MR. HARRY HAYTER: Mr. Chairman,

5

Members of the Commission, Ladies and Gentlemen.

6

I am Harry Hayter of Stephen Township,

7

County of Huron, representative of the Huron County

8

Beef Improvement Association.

9

We, the beef producers of Huron, view

10

with great concern the proposal by Ontario Hydro to

11

build a power plant in Huron County.

12

Huron is one of the top agricultural

13

producing counties in Ontario, with a total cattle

14

inventory of almost \$62,000 and total crop production

15

of over 70.5 million dollars as of June 1st, 1974.

16

We feel that future electric power

17

plants and transmission lines should be built on low

18

priority agricultural land or on non-agricultural

19

land.

20

Our concerns are:

21

1. Land tax increases as higher

22

populations will demand more services.

23

2. Increased danger of the farmer on

24

secondary roads and highways because of increased

25

traffic.



4-2 1 3. Higher cost and scarcity of labour.

2 4. Farm liability increases due to
3 hydro corridors. We feel Ontario Hydro should assume
4 all liability for accidental damage to power lines
5 on farm property.

6 5. Increased competition for land
7 resulting in requests for more severances on small
8 acreages. (i.e. for homes, trailer parks, etc.)

9 6. Inconveniences of the farmer
10 working below and around the power lines with large
11 equipment, aerial spraying, etc.

12 7. Availability of a large supply of
13 electric power in Huron could cause agriculture to be
14 secondary to large industry.

15 We also want to know the possible
16 effect of pollution from power plants, increased
17 numbers of motor vehicles, etc., on crops grown in
18 the area.

19 Corn, barley, alfalfa and mixed grains
20 are the main crops of concern in Huron County beef
21 production. Any detrimental effect on these crops
22 would reduce beef producers' production and income.

23 THE CHAIRMAN: Thank you, Mr. Hayter.
24 Again, we do not have the time to ask the questions
25 we would like to but you have made reference to marked



liability increase due to hydro corridors. What experience have you got in this connection?

This has been discussed and I think probably this is the first time it has been raised in a brief.

Have you any background information, Mr. Hayter, you could give us in connection with this point of liability increase that you mentioned?

MR. HAYTER: I am sorry, Mr. Chairman, I had no experience in that but as I represent the Huron County Beef Improvement Association there are members, and I would like our Vice-Chairman, and I believe he is here tonight, and I think he has had some experience with that and I would ask him to speak to that - George Adams.

THE CHAIRMAN: Yes, Mr. Adams.

MR. GEORGE ADAMS: At the present time, Ontario Hydro, if you damage a tower you are liable. If someone in our area, the area that you are familiar with, George, from Roxton to Harrison, I know of four large self-propelled four-wheel drive tractors in the neighbourhood of 200 horsepower.

Now if one of these large tractors collides, or the implements they are pulling, with a transmission tower it could very easily upset it or damage it. At the present time it could cost you



4-4

1 your farm because you are liable for it, not only for
2 the tower, but the line.

3 We are not sure but we think you would be liable if
4 somebody wanted to bring a lawsuit against you
5 if you shut down a factory with employees. It is
6 still part of the liability, and this is up in the
7 air. We have asked Hydro different times about this.

8 Our group made comments on the new
9 line compensation for pole lines, on the low voltage
10 lines, and we asked them to include this in the
11 agreements.

12 We have not seen it. Hydro are
13 reluctant to put it on paper that there is a gentleman's
14 agreement, or so I am led to believe, that Hydro does
15 pay for damage to pole lines. In making our comments
16 on the fee schedule or the new compensation schedule
17 for low voltage pole lines before we would make our
18 submission I asked Ontario Hydro to give us the
19 figures on what it costs them on damage for pole
20 lines and the figures that we received over the
21 telephone, we have not got them in writing, was that
22 in the last 10 years there was an accident rate of
23 one accident per year.

24 Now, I think this is something marvellous,
25 the amount of the poles that are on farm property.
It shows that farmers are not deliberately damaging



5 1 pole lines. There was one accident per year, the
2 maximum that Hydro had paid or assessed because they
3 fix it themselves so they charge their own labour,
4 was \$500; and the average was \$300. This is what
5 they told us over the phone.

6 But when it comes to tower lines, the
7 money involved is a horse of a different colour.
8 It is not \$1,000; it is in the hundreds of thousands
9 of dollars, it could be, and our opinion is that being
10 that a line is forced on to a farm property, you have
11 no option whether you take the line or whether you
12 don't, the laws of the land, if Hydro decrees that
13 they are going through the land, the line goes through,
14 and being that the land is for the good of society
15 as a whole we believe that the accidental liability
16 on any hydro installation should be part and parcel
17 of the deal, that the farmer has to repair his own
18 implement that can be damaged in a collision. We
19 feel this is fair enough. There is insurance avail-
20 able that the farmer can purchase for collision.
21 He can also purchase liability but not the liability
22 that could result from a bad claim if some of these
23 large tractors wound up in one of these big towers
24 because a single tower could go to a half million
25 quite easily.

This has been our experience with



4-6

1 farm liability.

2 THE CHAIRMAN: Would you anticipate
3 that you people will be bringing this forward in a
4 formal brief as an issue?

5 MR. ADAMS: I think likely we will be,
6 Mr. McCague.

7 THE CHAIRMAN: If you have information
8 meanwhile the Commission will be pleased to receive
9 it. It hasn't got to our attention, but as I mentioned,
10 Mr. Hayter's reference is the first time it has come
11 forward in a presentation.

12 MR. ADAMS: If I could get back again,
13 Hydro has given us that over the phone; we have not
14 been able to get it in writing. If mail gets back
15 to normal, maybe we can.

16 Thank you.

17 THE CHAIRMAN: Thank you, and thank
18 you, Mr. Hayter.

19 Mr. David McCallum, Secretary of
20 the Bruce-Huron Powerline Negotiating Committee.

21 MR. MCCALLUM: The Bruce-Huron Powerline
22 brief to the Royal Commission on Electric Power
23 Planning for Ontario; Dr. Arthur Porter and other
24 Commissioners; Ladies and Gentlemen:

25 The Bruce-Huron Powerline Negotiating



4-7

1 Committee is composed of property owners on the now
2 existing Bruce to Seaforth right-of-way. We have been
3 relatively close to the issues which your body is
4 now considering and we wish to stress our concerns
5 to you in as concise a fashion as possible.

6 May we first admit that we all need
7 a supply of clean, safe electrical energy guided by
8 true and relevant growth forecasts.

9 Our prime concern is whether future
10 generating sites and transmission lines should be
11 allowed to encroach upon the bread basket lands of
12 this Province. Must the heritage of leading food-
13 producing lands be destroyed by the careless placement
14 of generating stations and transmission lines?

15 This three-county area, blessed with
16 the most favourable conditions of moisture and heat
17 units leads in the production of a wide range of food
18 tender fruits, vegetables, canning crops, white beans,
19 all grain crops, dairying, pork production, and of
20 course, Bruce County is a known leader in beef
21 production. It is now overshadowed by a serpent
22 which we find rather uncomfortable to handle. It has
23 affected our agricultural community to the point that
24 our every day lives, directly or indirectly, have
25 changed. It has in the Bruce area, changed the rural



-8 1 scene to one which you might find outside a large
2 metropolitan municipality.

3 There are increased demands on schools,
4 hospitals, servicing, policing and labour. The high
5 labour rates paid at the Bruce Generating Construction
6 Site have challenged the rate structure of every facet of
7 our agricultural life-style. This is directly reflected
8 in a non-retrievable increase in production costs
9 and adds to inflation. The serpent's body is proposed
10 to grow into the development of C and D reactors at
11 the Bruce, and his ugly head may entwine itself across
12 Bruce-Perth as well as leaving another offspring in
13 South Huron (proposed generating site at Blake).
14 The head of this serpent is reaching directly into
15 this unique bread-basket.

16 Our conclusions are:

- 17 1. Perhaps the load requirements'
18 forecast is examined by too few. Ontario Hydro should
19 take a broader examination in the future planning of
20 the Province and final decision should rest with the
21 Government and the people.
- 22 2. The location of generating stations
23 should be closer to the area of greatest need.
- 24 3. Electrical side effects and some crops
25 are incompatible



4-9 1 4. Vast programmes like the Bruce
2 create a much larger impact on society than those which
3 are smaller.

4 5. Some lands in Ontario have the
5 potential to produce much more than others. It is
6 the potential which must be protected.

7 6. We give a prayer for our children,
8 their children and their children's children. May
9 they always have food on their tables as we have had
10 in generations past. Waste not, want not.

11 Respectfully submitted.

12 THE CHAIRMAN: Thank you, Mr. McCallum.

13 What membership is there in the Bruce-
14 Huron Powerline Negotiating Committee? What total
15 groups do you represent?

16 MR. McCALLUM: As our brief introduces,
17 it is made up of the property owners directly involved
18 on the Bruce-Seaforth right-of-way which was initially
19 in the neighbourhood of 165 to 170 property owners.

20 Now as you may realize there has been
21 some settlement with Ontario Hydro but there are
22 other property owners who are still not completely
23 satisfied and wish to take their problems on to
24 the Land Compensation Board and this will be I
25 believe the next step.



4-10 1 I might add, my apologies for being
2 late in coming this evening. I am also involved with
3 the Huron County Soil and Crop Improvement
4 Association as a member and they had their annual
5 meeting at the Howick Central School this evening
6 and there are 175 Huron County farmers sitting out
7 there and I have received their endorsement under
8 signature of their President, Mr. Scott Clarkson,
9 for this brief also.

10 DR. STEVENSON: Mr. McCallum, I think
11 you and your fellow farmers on the Bruce to Seaforth
12 line perhaps are the current experts in the Ontario
13 Hydro land acquisition policies and I just want to
14 ask you whether you think that in general the new
15 policies and the changes in the Expropriation Act,
16 the policy of Ontario Hydro to conduct its land
17 acquisitions within the four corners of the Act;
18 and the more formalized procedures for negotiating
19 compensation are working - if you remember the
20 question.

21 MR. McCALLUM: As time progressed we
22 could see that we were making great steps in this
23 field. However, one problem has subsequently led
24 to another problem. We find that some of the people
25 originally were expropriated by the full width of



-11

1 the wide corridor and if they chose the now portion,
2 to settle just for the now portion, which is one
3 of the new options in Hydro's new policy, many of
4 them found it impossible to take this small portion
5 on because they were expropriated as a full width,
6 remember, in the beginning and it was never really
7 re-granted back to them so that they could legally,
8 as the Provincial Expropriation Act states. The
9 Land Compensation Board and the Board of Expropriations
10 for Peel have expropriated them so there was still
11 an area of dissatisfaction there and I hope that it
12 will gradually work itself out but at the stage we
13 are in right now I expect that there will be a number
14 of cases appearing before too long in front of the
15 Land Compensation Board.

16 DR. STEVENSON: Thank you very much,
17 Mr. McCallum.

18 THE CHAIRMAN: Thank you, Mr. McCallum.
19 Mr. Lorne Luther the National Farmers
20 Union in District 5.

21 MR. LORNE LUTHER: Mr. Chairman,
22 Commissioners, Ladies and Gentlemen:

23 Members of the National Farmers Union
24 in District 5, Region 3, and no doubt a majority of
25 farmers, believe that food production and energy



4-12 1 should not compete for land.

2 This Royal Commission should keep upper-
3 most the fact that food and energy will be two most
4 crucial problems facing society in the future, not
5 only in Ontario or Canada but the world. Therefore,
6 a careful and rational approach respecting food land
7 must be included in long-range planning of electric
8 power plants.

9 In the past Ontario Hydro has pursued
10 development plans without consulting the public at
11 large, and with a very narrow view of the consequences
12 to the human being, the environment or the financial
13 cost.

14 We trust your Commission can reverse
15 this situation and the public in the future will be
16 fully aware of long-range plans and have an opportunity
17 to influence the end results.

18 We hope your Commission will be able
19 to advise the public of what effect hydro generating
20 plants will have on farm land; on industrialization;
21 on the rural community. Also what effect Nuclear
22 Power Stations will have on human health, on livestock
23 and on plant life.

24 Do the dangers, and risk of accidents
25 justify the continuing development of nuclear power



-13 1 plants?

2 The establishment of a series of
3 generating plants placed around southwestern Ontario can
4 only lead to industrialization of what is now the
5 Province's prime agricultural land, with the resulting
6 corridors of tower lines to transport the power.

7 We ask that the commission also look
8 at the other impacts likely to be experienced - the
9 loss of farmers - of specialized crops and livestock
10 industry, the residential growth of rural communities
11 and its demands for extended services.

12 If the need for increased electric power
13 is becoming so crucial we would ask that this
14 Commission determine "for what purposes." Are, in
15 fact, the proposed requirements for future output equal
16 to the projected future needs? What is wrong with
17 our present supply points - are they worn out? Is
18 Niagara Falls being fully utilized as a power supply?
19 Has any investigation been made of small supply plants
20 from existing dam sites or those that may be built?
21 What about solar power? If we must build new electric
22 plants, why can they not be built close to the point
23 needing the power, rather than using miles of towering
24 high voltage lines?

25 We realize there are many questions
at this time, and that your Commission is charged with



1 finding the answers. We are pleased to know it is
2 your intention to work closely with the public at
3 whatever level. Those of us particularly concerned
4 about food production and the rural scene are ready
5 and willing to assist in whatever ways possible, if we
6 can be provided the necessary resources.

7 Submitted by District 5, National
8 Farmers Union.

9 THE CHAIRMAN: Thank you, Mr. Luther.

10 There is legislation now in the
11 Province of British Columbia which, well, I suppose
12 is more or less freezing good land into agriculture.
13 You are aware of the type of legislation that they
14 have put into effect recently.

15 MR. LUTHER: Well I don't know just
16 how fully aware I am of it.

17 THE CHAIRMAN: But you are aware of
18 it in a general way?

19 MR. LUTHER: Yes.

20 THE CHAIRMAN: You think that the
21 time will come when there will be necessity for this
22 kind of legislation in Ontario?

23 MR. LUTHER: It is quite possible.
24 If we want Southern Ontario reserved for agriculture
25 it is quite possible this would have to happen.



4-15 1 You know, some things society will have to decide,
2 do they want food; do they want industry; or just
3 what do they want; and the rate we are losing land,
4 with the figures that have been put before us, it
5 makes you wonder. There is quite a variation in it
6 but they talked about losing a 100-acre farm every
7 three hours. That is quite a loss - 26 acres an
8 hour.

9 THE CHAIRMAN: You mentioned "In the
10 past Ontario Hydro has pursued development plans
11 without consulting the public at large ..." You trust
12 ^{will} the Commission / reverse the situation. What are
13 the alternatives? This is what we want to hear from
14 the public, how to do this. What do you recommend?

15 MR. LUTHER: We are not just sure. We
16 are asking questions there. Mostly what we are
17 asking concerns some questions that we have. We have
18 not really researched that far so I don't know whether
19 I can give you a hard, fast answer on that or not.
20 Something definitely should be done.

21 THE CHAIRMAN: Would you expect in
22 your formal submission, and we will be looking for
23 a formal submission from the Farmers Union when we
24 proceed with the formal hearings that you will be
25 making firm proposals in connection with this issue



-16

1 that we are talking about right now, coming to grips
2 with this situation and saying this is our view,
3 this is the course that should be taken?

4 MR. LUTHER: We hope we can if we can
5 get the proper research done. We understand that
6 there are funds available and we understand that there
7 is a Committee set up of the agricultural producers
8 primarily involved that are asking for a fund and
9 we hope we can draw from this source of information.

10 THE CHAIRMAN: There is a funding
11 paper in your kit, as was mentioned earlier.

12 MR. LUTHER: Yes.

13 THE CHAIRMAN: Thank you very much,
14 Mr. Luther.

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DP:yk 1
5-1

I think we might have one more submission and then coffee. Hans Feldmann of The Listowel Farmers.

MR. FELDMANN: Mr. Chairman and Members of the Commission, Ladies and Gentlemen.

Mr. Chairman, I may say that I am here personally, I am not here representing anybody.

The purpose of this brief is to point out the importance of agriculture, the need to preserve farmland, and the detrimental effect electric power installations can have on agricultural production.

Out of a total land area of approximately 228 million acres, Ontario has about 10 million acres or 4.4% of good farm land, Class I and II soils left. These soils are primarily located in South-Western Ontario and to a lesser extent in Central Ontario.

Because of favourable climatic conditions, farmland in South-Western Ontario produces field crops, fruit and vegetables of many varieties, that cannot be grown in most other areas of the province and in most of Canada.

The agricultural industry, which feeds us all and provides employment and livelihood for many, either directly or in related industries, depends on



1 its soils as its major resource. Topsoils have been
2 built up by natural process over thousands of years
3 and once destroyed the reconstruction of soils is
4 difficult and uneconomical. Agriculture is tied to its
5 soils and cannot move elsewhere. A reduction of cropland
6 through non-agricultural development inevitably reduces
7 the potential for food production.

8 As the population of Ontario grows and
9 as pressure on world food supplies increases, agri-
10 culture in Ontario has to meet the following challenges.

11 1. To increase production to meet
12 increasing demand.

13 2. To minimize dependence on foreign
14 sources.

15 3. To build up resources to insure
16 against crop failures here and abroad.

17 To meet these challenges it is absolutely
18 necessary that all farm land presently in production
19 is retained, and that all as yet undeveloped land
20 that has the potential is put into production.

21 Plans for additional construction of
22 generating stations along the shore of Lake Huron and for
23 the establishment of transmission line corridors from
24 Bradley to Georgetown, as outlined in public meetings
25 by Ontario Hydro, will cause losses to the productive



-3 1 potential of agriculture in the areas involved. These
2 areas, located in the counties of Huron, Perth,
3 Wellington and Waterloo are mostly classified as to
4 contain between 75-100% of class I and II land.

5 I left out Bruce because I was not sure of the data.

6 The installation of generating and
7 transmission facilities will take up considerable
8 amounts of land. Construction will cause damage to
9 surrounding land and drainage systems, especially if
10 transmission corridors, once established, are also
11 utilized for other purposes like pipe and gas lines
12 and municipal water and sewage systems.

13 The far greater threat to agriculture,
14 however, will come from subsequent industrial and urban
15 development, that inevitably will take place in close
16 proximity to the source of electrical power.

17 Since agriculture must parallel growth
18 and development of all other sectors of the economy
19 and cannot afford any further loss of land, industrial
20 and urban development should be directed towards areas
21 with marginal soils in Eastern and Central Ontario
22 and possibly in Northern Ontario.

23 Electrical generating facilities, which
24 will supply the much needed power for industrial growth
25 and will catalyze industrial and urban development,



4 1 then should be directed to be built near these often
2 as yet undeveloped areas with marginal land rather than
3 be built in the heartland of Ontario agriculture at
4 the expense of food production potential and to the
5 detriment of the agricultural industry.

6 Respectfully.

7 THE CHAIRMAN: Thank you, Mr. Feldmann.
8 This is a personal presentation?

9 MR. FELDMANN: Yes, it is.

10 THE CHAIRMAN: As you know, reference
11 has been made to this funding programme for individuals
12 or groups. You have presented a very thoughtful
13 brief here and you might wish to follow it up in a
14 formal way or you might wish to join in with some
15 organized group, and this is your option.

16 MR. COSTELLO: With reference to
17 transmission corridors, Mr. Feldmann, it has been
18 suggested in other meetings by other people maybe
19 there should be corridors in which highways, gas
20 lines, pipelines and transmission lines should be
21 routed through - in which each of these various
22 lines should be routed. You suggest that is not a
23 good idea?

24 MR. FELDMANN: I have no objections
25 to corridors but what I object to is to do it right



1 through a farm. We would not do it right across
2 a factory, neither would we do it on top of a known
3 oil field but we seem to have no respect for agri-
4 cultural land even though it may be our most important
5 resource.

6 MR. COSTELLO: I did not get your
7 point; I get it now. Certainly the people in Northern
8 Ontario are looking for development in that area
9 and I would hope they would get some.

10 Thank you.

11 THE CHAIRMAN: Thank you, Mr. Feldmann.

12 Now let's break for coffee, probably
13 15 minutes, Ladies and Gentlemen. We are making very
14 good time but not enough time for discussion. So
15 15 minutes, if you can make it.

16 --- Short Recess.

17 ---- Upon Resuming.

18 THE CHAIRMAN: Ladies and Gentlemen,
19 may we reconvene?

20 We would like to compliment all those
21 who have made their presentation on making their
22 presentation as brief as possible. We are in some
23 difficulty time-wise. We still have six submissions
24 before we have an opportunity for open discussion, so
25 if you could summarize your briefs from here on to



1 some extent this will help the time situation.

2 The next brief is from the Christian
3 Farmers Federation of Ontario, Mr. Elbert Van Donkersgoed.

4 MR. DONKERSGOED: Mr. Chairman and
5 Commissioners, the Christian Farmers Federation of
6 Ontario appreciates this opportunity to make some
7 preliminary comments on the issues that your Royal
8 Commission must deal with in the months ahead. We
9 will keep our comments very brief because we have had
10 to maybe work out what lies ahead, the months or
11 probably a year or two ahead.

12 Who are we? The Christian Farmers
13 Federation is one of Ontario's general farm
14 organizations. Our membership is made up of approxi-
15 mately 500 family farmers spread from Essex County to
16 Dundas County and from Thunder Bay to the Niagara
17 Peninsula. Our members are organized into 15 locals
18 and they, along with our Executive Board constitute
19 our policy setting Provincial Board. Please see
20 the attached "Introduction to the Christian Farmers
21 Federation" for more details.

22 The comments to be made here this evening
23 are based on the views expressed by this provincial
24 body and our Executive Board during the past years.

25 A comment on our plans. The Federation



1 intends to prepare a major statement of its con-
2 cerns, for your consideration during the next year. Work
3 on this has already begun to the extent that we are
4 keeping our selves up to date on all developments
5 relating to Hydro's future plans and the Royal
6 Commission's work. This evening we will try to identify
7 those concerns to which we hope to address ourselves
8 and to which we believe the Royal Commission must
9 address itself.

10 Growth Economics. We intend to
11 challenge Ontario Hydro's plans since they are based
12 on growth economics - a philosophy that still lingers
13 from the days when we all believed that resources
14 were limitless. In other words, we are not convinced
15 that the total grid system is essential to Ontario's
16 future economy.

17 Mandate of the Ontario Ministry of
18 Energy. We intend to show that many of our present
19 difficulties are in part the result of inadequate
20 public control over past Ontario Hydro goals and
21 practices. We will make some recommendations re
22 the public mandate of Ontario's Ministry of Energy.

23 Mandate for Ontario Hydro. Not only
24 should your Royal Commission examine the mandate of
25 the public body with responsibility for all energy
in the province; but also the mandate of the specific



1 corporate structure responsible for electrical energy
2 should be closely examined. We will have a number of
3 concerns and ideas to share with you about this.

4 Some thoughts on public participation -
5 its purpose. In our view the basic purpose of Ontario
6 Hydro's public participation program to date has not
7 really been public participation. Ontario Hydro has
8 used this as a tool by which it hopes in its proposals
9 to the Ontario Government to argue, "This proposal has
10 been prepared with the assistance of the general
11 public; therefore no independent hearings will be
12 necessary before final approval."

13 We will address ourselves in our
14 statement to the need for adequate public participation.

15 A comment on the format of public
16 participation. The Christian Farmers Federation
17 believes that, to date, Ontario Hydro's format
18 for public participation meetings has been unacceptable.
19 The difficulty centres on the fact that Ontario Hydro
20 has been chairing these public meetings itself.

21 This format has led to a number of
22 distortions:

23 a. The applicant tends to slant the
24 discussion and available information to suit itself.

25 b. Even if the applicant does not



-9 1 slant the discussion or information, the public tends
2 to believe that this is the case.

3 c. When antagonism develops between
4 the public and the utility, the public very easily
5 becomes abusive towards the chairman.

6 Such meetings just don't accomplish
7 anything towards the common good. We intend to share
8 some thoughts on possible improvements.

9 Some concerns about land use. Ontario
10 Hydro will not only use a lot of land in Ontario for
11 its sites and transmission lines but it will also
12 indirectly plan the use of much land around its
13 facilities. There is a need in Ontario for a broad
14 program of land use planning that will include planning
15 for electrical power. We intend to illustrate the
16 unacceptable effects of land use planning as it has
17 indirectly been done by Ontario Hydro and we will
18 argue that public land use planning must be done before
19 Hydro is allowed to proceed on any projects.

20 The value of food land. The Christian
21 Farmers Federation believes that Ontario Hydro has
22 in the past been quite ignorant of the true values
23 of food land. We, along with other farm groups, are
24 now actively engaged with Ontario Hydro personnel in
25 a major project to develop a better evaluation. We



-10 1 intend to share the results of this work with you
2 and to state to what extent we can be happy with its
3 picture of food land.

4 The Weighting of Impacts. The Christian
5 Farmers Federation believes that the relative importance
6 of agricultural land has been grossly under-estimated
7 by Ontario Hydro. For example: in the Bradley-
8 Georgetown Environmental Report on a scale of 4, agri-
9 culture was placed at 2.83, just above the 2.81 ranking
10 of visual impact. Those figures say that agriculture
11 is just a little more important than the 'cultural
12 experience' of driving down Highway 86, and those
13 of were the words/Hydro officials at one meeting I
14 attended. We have on file a 125-page document backing
15 up the cultural experience rating for driving on our
16 highways. For the agricultural rating we have obtained
17 from Hydro a three-page letter with a four-page
18 appendix. Such unbalanced documentation needs
19 correction! We trust that the present meetings with
20 Hydro personnel will change this and will also change the
21 relative importance of these factors. We look forward
22 to sharing the results of these workshops with you
23 and stating our view on the relative importance of all
24 impacts.

25 Environmental Impact Studies. There



1 is no longer any doubt that Environmental Impact
2 Studies are essential before any major electrical power
3 facilities are built. However, studies to date are
4 totally inadequate for making any decisions. We
5 intend to show in the particular case of the Bradley-
6 Georgetown Environmental Report that it is totally
7 inadequate. No decisions can realistically be based
8 on its findings and any Bradley-Georgetown decisions
9 that have been made can only be seen as arbitrary.

10 Priority Projects. We are concerned
11 that decisions will be made on priority projects
12 in a very arbitrary manner as only inadequate studies
13 are available to date. We believe that new studies
14 are essential if the decisions to be made are to be
15 acceptable.

16 Hydro's Procedures. We intend to make
17 a number of recommendations on how Ontario Hydro can
18 improve its site and route construction and maintenance.

19 Conduct of the Main Hearing. We are
20 prepared to work within whatever framework you may
21 wish to establish. We, as organization, do not expect
22 to have any difficulty with even the most formal
23 setting but such may not be in the best interest of
24 the broad public participation that you are seeking.

25 Funding of Public Interest Groups.
The Christian Farmers Federation is concerned that



monies to be allocated to Public Interest Groups in preparation for their submissions to the Royal Commission will be directed mainly towards very basic research. We believe this would be a major mistake. Much basic research is already available to all interest groups. The real difficulty and real challenge of today is to draw all these bits of information together. You, as Royal Commission, are called upon to relate to all interests and information and develop from there proposals with which we can all live. Those interest groups that are able to help you in drawing all facets together, should be your priority choices for funding, if your budget forces you to turn down requests.

Christian Farmers Federation Funding.
We submitted to you a draft budget for what we expect our work to involve prior to your October 29 Preliminary Statement on Funding. We have studied your statement and will shortly submit a revised budget along the lines that you request.

Agricultural Representation. The Christian Farmers Federation is concerned that agricultural interests be adequately represented before the Royal Commission at all of the main hearings. We will be able to attend only a few ourselves and so



3
1 urge you to find a way to do this via the Food Land
2 Steering Committee that has been organized. We endorse
3 the work of that Committee wholeheartedly.

4 Criteria. Ontario Hydro has sought
5 to establish criteria by sending out questionnaires
6 to residents in planning areas. We believe that the
7 criteria for life must be found outside oneself - in
8 God and His Creation. If society looks only inward
9 for its values and its mores, it can only weaken. We
10 intend to re-state some of the basic criteria - basic
11 guidelines that God has given to and placed in His
12 Creation - that are essential to maintaining a strong
13 society.

14 Conclusion. These are our concerns and
15 the issues that we foresee at this time.

16 Thank you.

17 THE CHAIRMAN: Mr. Van Donkersgoed this
18 is an excellent brief and to strike into this in any
19 detail discussion would take us a long time.

20 You have raised so many points here
21 that, while the audience obviously are concurring
22 with them, Bill, have you any points to raise or any-
23 thing in particular that you would like to comment
24 on or Bob? We would like to study it and we certainly
25 appreciate your participation and look forward to



1 these offers of co-operation and assistance and
2 your ultimate formal submission with great interest.

3 FROM THE FLOOR: May I say something?

4 THE CHAIRMAN: Yes.

5 FROM THE FLOOR: I was just wondering
6 how come you fellows made all these plans before without
7 consulting anybody - it would just/^{be}like me and my
8 neighbour here going over to build something and -
9 I don't want any towers on my property.

10 THE CHAIRMAN: I probably misunderstood
11 you. There will be ample opportunity for open dis-
12 cussion once we have heard all of the submissions.

13 DR. STEVENSON: I just want to say,
14 Mr. Van Donkersgoed, one of your points intrigues me.
15 It is very much in line with my own thinking. If
16 you have a limited research budget and there is no
17 question that we have a limited research budget although
18 we don't know the total dimensions of it as yet, one
19 has to make some decisions on the focus of the research
20 and I think your point that we ought not to try to
21 do basic research is a good one. Basic research is
22 expensive and very consuming in time. Our focus ought
23 to be to try to somehow distill what is known about
24 some of these issues and to make it available widely
25 in Ontario in a condensed and yet accurate way and I



1 think it is probably fair to say except for two or
2 three areas in which we just think there has been
3 a lack of concern, almost a complete lack of concern,
4 at the moment our thinking is that we will spend most
5 of our time and budget collating what is already known
6 and disseminating it as widely as possible.

7 MR. VAN DONKERSGOED: Could I make
8 one additional observation on the matter of research?
9 When, for example, it comes to agricultural research,
10 particularly if it comes to basic agricultural
11 research, if there is a feeling that there are some
12 areas that this should be done then I think there is
13 a very strong feeling within the agricultural
14 community that we would like to have a measure of
15 control over that research. We would not like to see
16 the Commission on its own or anyone else for that
17 matter on their own sponsoring such research.

18 I think that is one of the difficulties
19 we are facing right now with Ontario Hydro where
20 research is being done on agricultural related areas
21 and we can't even find out what is going on at the
22 University of Guelph, for example. We can't really find
23 out. We are the agricultural community. If that kind
24 of thing is to be done, we would like to be in right
25 from the ground up on just what exactly that research



1 is trying to prove. So I would leave that with you
2 then. It is probably true for any other interest
3 group as well.

4 THE CHAIRMAN: This is research that
5 the interest groups themselves would be undertaking?

6 MR. VAN DONKERSGOED: I would say this
7 of any basic research, not just that we undertake it
8 ourselves but when we have been confronted with the
9 studies that Hydro has done, for example, at Ridgetown
10 and they have done some more this past year at Kempville,
11 we were introduced to those studies after they were
12 completed. We are saying that if there is going to be
13 credibility in those kind of studies we need to be
14 in on those, what they are all about, right from the
15 ground up.

16 THE CHAIRMAN: Thank you, Mr. Van
17 Donkersgoed for a splendid brief.

18 Mr. Pat Daunt.

19 MR. DAUNT: Mr. Chairman, Members of
20 the Commission, I thank you for giving me this
21 opportunity to express my views and concerns to you.

22 I may say I know time is limited. I
23 am not an expert at finances and some of the things
24 that have been said before.

25 The first question I would like to ask



5-17 1 you is I would like you to put a value on an acre
2 of food land. I wonder if you could make this
3 evaluation in the context of a world food shortage
4 when we would be competing against hungry nations for
5 available food supplies.

6 This question is not intended to be
7 an emotional question but rather to stimulate hard
8 thinking and the answers must be based on facts.

9 Over the past few years world food
10 production has declined 4%. These are facts that
11 have been released just lately. There is less storable
12 food in the world today than there was a year ago.
13 Most people who look into the future agree that in
14 20 to 25 years there will be a serious world-wide
15 food shortage. In Ontario we have failed to co-ordinate
16 the use of our resources for the benefit of society.
17 We do not have a land use policy and it is obviously
18 needed right now and it is high time, sir, that the
19 consumer as well as the farmer assumes responsibility
20 for preservation of prime food lands of this Province.

21 Food land, by the way, is that limited
22 and small percentage of land in Ontario capable of
23 producing food.

24 Ontario statistics reveal that 26 acres
25 of improved farm land were lost to agriculture in the



18 1 years 1966 to 1971 and a more recent report,
2 commissioned by the Ontario Government, put the figure
3 at over 40 acres an hour.

4 Now, as a farmer, I don't need those
5 figures to realize what is happening. Every time I
6 travel to the City I can see land that I would be very
7 happy to grow food on being destroyed, and I mean
8 destroyed. We can never grow food on it again.

9 Back to the original question. What
10 is an acre of land worth? An acre of something that
11 there is obviously less of each year; an acre that
12 will produce in Ontario 90 bushels of corn or 40
13 bushels of wheat or 50 bushels of barley or 30
14 bushels of soybeans or 13 cwts. of dry beans or
15 $2\frac{1}{2}$ tons of hay, and do this not just once but with
16 proper management could continue to produce forever.
17 What is that acre of land worth? What is the real
18 value to society of such a resource?

19 We have been told that farmers
20 expressing such a view stand in the way of progress.
21 I respectfully suggest, sir, that people making such
22 a statement, having failed to give serious thought
23 to the use of Ontario's resources are actually in
24 pursuit of a fast dollar.

25 With No. 1 and No. 2 prime agricultural



-19 1 land, good land, being only $2\frac{1}{2}\%$ of Ontario, it would
2 seem that there is ample room for development and
3 growth in this province. This growth and development
4 can take place alongside and parallel with agriculture
5 and need not and should not destroy agriculture.

6 Now, our concerns in this area in
7 Western Ontario are centred around the nuclear power
8 centre at Bruce and Douglas Point.

9 This present impact on the area, and,
10 even more important, its future impact on this area,
11 we are concerned about the effects of transmission
12 lines and corridors to transmit the power to the
13 cities which will need this power. We are concerned
14 about the effect that these lines and corridors will
15 have on the land, the livestock, the people, the farms
16 and the communities through which these lines pass.
17 We are concerned about the total impact, the total
18 impact of this programme, of its effect on the produc-
19 ing ability of the most productive food producing
20 area in Canada; and that is Western Ontario.

21 We do not want to again be victims of
22 such a study as the Bradley-Georgetown Transmission
23 Line Study, a study shared and dominated by engineers
24 and along those lines, sir, I may say off the cuff
25 in Guelph on the 8th of November of this year there was



1 a meeting of the Ecologists in Ontario. 34 attended.
2 I think their business there was forming a government
3 body for the profession of ecologists. However, at
4 that meeting the Bradley-Georgetown Study was held
5 up as an example of a poor study and one of the things
6 that the Ecological Governing Body should be - of
7 the obvious need for such a body. That was the
8 Ecologists themselves talking about that.

9 Sir, I would like to bring to your
10 attention a Government study which has not been
11 widely published and it is a study and - I really
12 think you should pick this one up. I cannot pick it
13 up, there are so many things we can't get a hold of
14 that we need - it is a study of the Central Ontario
15 Lakeshore Urban Complex. It is a study by six
16 Government Departments and six Senior Planning people
17 from the areas concerned and it covered an area from
18 Hamilton to Port Hope and North Bay and Simcoe.

19 Now, that report was very revealing
20 and I think maybe I should take time to read some
21 of the comments in that report because I think that
22 report is something that they could be writing about
23 us if we are not careful what we do here.

24 Quoting from one or two paragraphs:

25 "Both provincial policies and provincially-



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"approved municipal official plan

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reflect an urban basis exhibiting

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little concern for rural and resource

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priorities. Agricultural designations

5

are often regarded as an (inaudible)

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holding category."

7

That was one comment.

8

"Ontario cannot afford to gamble with

9

the future and risk losing a significant

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proportion of its good agricultural

11

land."

12

That is another comment.

13

Another comment, and I will let you

14

pursue this report after this comment:

15

"Any plans involving the sacrifice of

16

thousands of acres of such lands take

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into account the very real possibility

18

of a world-wide food shortage within

19

30 years, a shortage which could pose

20

a serious threat to Ontario's tradi-

21

tional sources of food and imports.

22

With a growing population and with a

23

landbase Ontario may have to import

24

60% of its food in the year 2,000,

25

25 years down the road."



1 That report, sir, should be looked
2 at. I wish I had a copy of it.

3 It is very serious what is happening
4 to us. It could happen down here; it could happen on
5 the shores of Lake Huron. It has started to happen
6 here and if we don't get our priorities straight it
7 will.

8 I want to make one or two comments,
9 and I have been asked to cut my presentation short.
10 I want to make my comments on Douglas Point.

11 Bruce A is near completion and since
12 your Commission has come into being, Bruce B has been
13 given the go ahead. I ask you, sir, what about Bruce
14 C and Bruce D. Perhaps that power should be generated
15 in some other part of this large province, thus
16 helping to establish a viable community in one of
17 our less populated areas.

18 I feel you should take a look at some
19 of the things that have happened because of the
20 Bruce Generation Station. Employment at the site has
21 now reached 6,500 people. The Dillon Report of
22 September 1974 estimated that the 1978 work force
23 would be 7,400 and that after 1984 only 2,000 people
24 will be employed here. Thus an estimated 5,400
25 skilled people will be seeking other employment;



5-23 1 people who by now probably own homes in the area and
2 will have a part in the community. 5,400 skilled
3 people - where are we going to put the industry to
4 give them the jobs they deserve, possibly on prime
5 land, it is cheaper to build there, we have been
6 told. Thus again, top quality food-producing land
7 will be used for non-agricultural purposes. This
8 is a process that seems to be irreversible, once
9 food-producing land is destroyed, it cannot be replaced,
10 surely an uneconomic, foolish way to conduct a society.

11 Thank you, Mr. Chairman.

12 THE CHAIRMAN: This is a personal
13 presentation?

14 MR. DAUNT: I belong to the Concerned
15 Farmers, and work with them, but I made this on my
16 own.

17 THE CHAIRMAN: We have heard you before
18 and we know of your deep concern and again our time
19 situation is not good.

20 Will you put a price on an acre of
21 food land?

22 MR. DAUNT: Would I put a price on an
23 acre? As a member of society I hate to put a price
24 on it. In other words, sir, what I am telling you it
25 should not be the farmers responsibility to save this



1 land for society. I think this responsibility has
2 got to be assumed for the whole of society.

3 Farmers are being criticized for
4 selling out. They say if a customer comes along with
5 a good price he will sell out. I don't think that's
6 a very fair way to express that. I think it is
7 society's responsibility and society is responsible
8 for what is happening.

9 A farmer in the vicinity of Toronto
10 is paying four times, maybe five times, I know that,
11 as much taxes as I am for the same acre of land. He
12 has had that overhead built up over a number of years
13 and is maybe having a little financial trouble and
14 of course if you are offered \$15,000 an acre, which
15 some of my friends have been offered, it is quite a
16 thing.

17 THE CHAIRMAN: I think society is
18 beginning to realize that it is the responsibility
19 of society. Thank you very much.

20 MR. DAUNT: Thank you, sir.

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1 THE CHAIRMAN: Ladies and gentlemen,
2 we still have six presentations, I believe, and what
/kr 3 with the mails there has been great difficulty. I think
4 it is nine presentations have come in since we opened
5 the meeting this evening.

6 There are two proposals: one that we
7 break off presentation of submissions now and open
8 the meeting for discussion and then go back to the
9 submissions and deal with them as long as you people
10 are prepared to stay and listen.

11 There is another proposal that some time
12 early in January we can have two meetings, one meeting
13 here or South of here wherever you would select and
14 it is probable that these meetings might be chaired
15 by two or three commissioners, probably three because
16 we have a rather difficult schedule, but nevertheless
17 what would be your reaction to two meetings areas that
18 you would select early in January for discussion
19 purposes; and now proceed with the rest of the briefs?

20 While you are rolling that around in
21 your minds how would it be if we proceeded with one
22 more brief and then we will ask the question.

23 Mr. David Gaunt , University student
24 from Waterloo.

25 MR. DAVID GAUNT : Mr. Chairman,
Commissioners, ladies and gentlemen. I would like to



1 thank the Commission for making an effort to get input
2 from different types of people, including students. I
3 feel that I am not in a position to try to add something
4 constructive to what has already been said. I am not
5 speaking for all the students, but just as a student.

6 I do apologize for not reading the
7 background information that was supposed to be available
8 in every area.

9 After spending 20 minutes with Mr.
10 (inaudible) at the head office at Kitchener-Waterloo
11 I was told he did not know anything about the Porter
12 Commission. He told me to call the public relations
13 department in Hamilton. After three phone calls I
14 finally got in contact with him. He told me the
15 nearest place to get that information would be Guelph.

16 First of all I would like to touch on some
17 of the more obvious concerns such as ecology. Pollution
18 is not a new thing, we all know that but we have known
19 this for a long time since, for example, a serious
20 problem which is sometimes justified for rural areas,
21 quite often dump a lot of garbage in it.

22 But let us also look at the rural
23 pollution problems. With farming becoming more
24 industrialized there is a cost increase in the use
25 of fertilizers, insecticides, herbicides and all heavy
machinery to make these expenses profitable.



6.3 1 With these extra burdens on land, we
2 should ask ourselves how we want the rivers to be, how
3 should virus be attracted from the land which is not
4 being taken care of properly. Individuals can take
5 action to protect themselves and have, but will this
6 have any effect on the real problem. We must have
7 co-operative action from everybody involved.

8 The second more contradictory concern
9 is the urban-rural conflict. We do not consider the
10 United Agricultural Land that is or that is needed. There
11 is still, I think, a major conflict.

12 Priorities from the Provincial Government
13 are and should be to take care of human health above
14 all else. Thus, any other cultural practice which seems
15 offensive or is offensive to rural home owners may be
16 limited to the vicinity of the house where it is located.
17 This includes the types of farm buildings and even
18 influence cultural activities such as spray crops.

19 Another more subtle thought is the
20 political pressures from different areas. Here a
21 County, mostly a rural area, has given high priority
22 to the agricultural use of land. On the other hand,
23 urban areas will give a very same quality of land a
24 different priority. Areas that are part urban and part
25 rural have a problem in getting together to establish
priorities. Listowel is a good example of this conflict.



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1 Some town people feel the only desire of the surrounding
2 area is to stop expansion of the town on agricultural
3 land. Many people from the surrounding townships
4 have agreed with the planning but some feel that they
5 should be compensated for any derivation caused by the
6 use of their land. If these local municipalities
7 cannot resolve their problems then the Provincial
8 Government should provide some direction. This is
9 easier said than done. Under the set-up, this
10 responsibility of co-ordinating growth lies with the
11 Ministry of Housing.

12 In conclusion, I think the only way to
13 a solution is proper communication between Government
14 and the public. I respect this Commission for that.
15 There is also a need for communication between Governments.
16 This means that people must know what the possibilities
17 are before decisions are made. We not only expect
18 the right decisions but also expect to know that they
19 are right.

20 Thank you.

21 THE CHAIRMAN: Thank you, David. What
22 are you specializing in at Waterloo?

23 MR. GAUNT: General science, right
24 now.

25 THE CHAIRMAN: You are^a/resident of
Perth County?



MR. GAUNT : Yes, sir.

THE CHAIRMAN: Thank you very much.

We have a related brief which is rather difficult to separate from David's. It is from Bill Armstrong who is Chairman of the Concerned Teenagers, and they seem to go together - Bill Armstrong?

MR. ARMSTRONG: Mr. Commissioner, Commissioners, ladies and gentlemen. We, a group of concerned teenagers, after discussing at length the aspects and impact of present generating stations, and transmission corridors would like to recommend that in the future these generating stations and power corridors be positioned nearer to the actual areas of need, thereby reducing the corridor requirement. We base this decision on the detrimental effects created upon the agricultural community surrounding the Bruce Generating Station. These effects include the gradual decay of farm buildings and cropping practices brought on by the migration of needed food producers from the farms to the guaranteed income supplied by the generating station.

Secondly, as a result of the high wages being paid at the Bruce Complex local farm services have been forced to increase their prices or be forced out of business, making it difficult for area farmers to compete. With farmers already having to struggle as a result of inflation they cannot absorb any further



1 additional headaches created by the presence of transmission
2 corridors.

3 Recent studies have shown harmful effects
4 upon labourers working with 400,000 and 500,000 volt
5 lines. With reference to this, the London Free Press,
6 November 26th edition states that 41 of 45 persons
7 showed, immediately after exposure, certain physical
8 symptoms varying with length of exposure, and persisting
9 for several hours after exposure. These symptoms include
10 instability of pulse and blood pressure, tremors of arms
11 and legs, and sweating. Ten or more subjects showed
12 slowed heartbeat, slowed electrical conduction in the
13 heart;and anemia.

14 Our conclusions in reference to these
15 facts would be a suggestion that in the future
16 generating stations be placed at the actual place of need
17 thereby eliminating miles of high-voltage transmission
18 lines and conserving valuable prime agricultural land.

19 Thank you.

20 THE CHAIRMAN: This is the first
21 presentation we have had from Concerned Teenagers. How
22 many are there in your group?

23 MR. ARMSTRONG: We represent the
24 teenagers of Ontario.

25 THE CHAIRMAN: Thank you very much.
That is the largest group that has been represented this



6.7 1 evening. And again, Arthur Porter would be very
2 pleased with this sort of thing because he feels we
3 must involve the likes of you, Bill, and your associates.

4 Ladies and gentlemen, there is one
5 brief that I got out of order. However, we discussed
6 the matter - to begin general discussion now for 45
7 minutes, followed by the remaining briefs or the
8 second option is to finish the briefs now and have
9 two meetings in January at sites selected by you people
10 here.

11 Somebody said that we should have known
12 one evening would not do for Wingham. On the basis
13 of briefs that have come to us it appeared that it
14 could comfortably be handled in an evening, and again
15 I refer to the mail, but we will certainly, from the
16 very evident interest, it is obvious we are going to
17 have many briefs and a large attendance so here we
18 are in this position.

19 Could we have a show of hands, that
20 is, to throw the meeting open now for 45 minutes for
21 a general discussion and then proceed with the remaining
22 briefs or finish the briefs and have two meetings in
23 January at points that you would choose.

24 Could we have the showing of hands?
25 Those that would like to see it thrown open for
discussion for 45 minutes and then finish the briefs.



1 Thank you.

2 Those that would prefer to have the briefs
3 now and have two meetings in January, a showing of hands.

4 Ladies and gentlemen, the count was
5 awfully close. Subject to a lot of criticism we
6 are prepared now to throw the meeting open for discussion
7 for 45 minutes and in any event hold a meeting in
8 January. We will undertake a meeting in January in any
9 event.

10 (Meeting not recorded in shorthand from this point on.

11 Please refer to tape recording at approximately 354
12 and at approximately 11.10pm.)
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Government
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THE ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

DATE: Dec. 2, 1976

TIME: 2pm

LOCATION: Hamilton

VOLUME NO: 11

OFFICIAL REPORTERS

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ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Meeting held at Hamilton,
Ontario, on December 2nd,
1975 at 2:00 p.m. in the
Ontario Room at the Royal
Connaught Hotel.

CHAIRMAN: DR. ARTHUR PORTER

MEMBERS OF THE COMMISSION:

ROBERT E.E. COSTELLO, ESQ.

MEMBER

DR. WM. M. STEVENSON

MEMBER

G. McCAGUE, ESQ.

MEMBER

VOLUME 11



2 1 After last evening it may be assumed
2 that our submission is based on the too immediate
3 future and does not allow for the magnitude and scope
4 of the Commission's terms of reference. This is
5 no doubt true, and for this I apologize. However,
6 perhaps our submission may assist you in recognizing
7 the needs of some of the interim decisions which
8 may be required in this matter.

9 We in the retail power distribution
10 field, and I assume I speak for other utilities
11 including some of my friends I see in the audience,
12 have a very present and pressing problem which cannot
13 wait for several years for an answer. This results in
14 our present frustration with the obvious delays inherent
15 in an exhaustive study such as the one you are about
16 to undertake.

17 The problem is here now and needs
18 answers now. Simply stated, it is this. The public
19 has suddenly lost faith in heating by oil or gas and
20 wants to take refuge in electric heat. We used to
21 take a potential electric heat customer into an office
22 and see him, give him a cigar and try to make him
23 feel as if he is somebody. Now, we ask him to take
24 a number and get in line. The question is, what do
25 we do with him now because he is our future load



3 1 for as long as we can see and we must depend on
2 Ontario Hydro to provide us with the power to serve
3 him, if we accept him.

4 The only possible controls are pricing
5 and possible legislation on service size. Our
6 function is to serve the public and neither of these
7 means are presently available to us except through
8 Ontario Hydro and Provincial Legislation. We need
9 your help and recommendations now before it is too
10 late to turn back.

11 Now, that is preliminary to my submission,
12 copies of which I believe the Board has and I will
13 read, if I may.

14 It is our understanding that the
15 primary function of this Commission is to determine
16 the quantity of electrical power which will be required
17 to serve the people of Ontario in the near future,
18 and thus the facilities required, including the type,
19 size and location of:

- 20 a) generating stations
21 b) transmission lines
22 c) distribution facilities

23 These are very desirable objectives
24 and the public has a right and an obligation to
25 participate in establishing the answers. However,
we take exception to what appears to be the form



4

1 of questioning, because at this point it would appear
2 to lead to a continuous and repetitious circle of
3 arguments about uses, conservation, ecology, alternative
4 energy sources and innumerable or group priorities.

5 All these are in themselves important
6 considerations, but they are not questions which the
7 public can reasonably be expected to even comment on,
8 let alone answer, without some parameters, and
9 alternative choices.

10 As an example, the Burlington Public
11 Utilities Commission can provide all the data on
12 present electrical loading in Burlington, together
13 with historical background, and future projections,
14 based on established growth patterns. However, such
15 a projection can not knowledgeably take into account
16 any of the factors which inevitably will change
17 present trends. These include such items as declining
18 fuel reserves, changes in modes of transportation,
19 types of fuels available for space and water heating,
20 and also restrictions on commercial lighting and
21 advertising, and all forms of planning by other
22 Boards and Councils.

23 Thus while we may be knowledgeable in
24 our special field of electrical distribution, we
25 have no crystal ball to determine the limitations



5 1 of the factors affecting our projections and thus
2 2 can provide no reasonable estimates until the limiting
3 3 factors, in a rapidly changing society, are more
4 4 clearly defined.

5 All this leads to the fact that
6 6 electrical energy, although it is a manufactured
7 7 product, is limited in its output not only by the
8 8 size of its plant and associated transmission and
9 9 distribution facilities, but by its raw materials,
10 10 and finally by the saleability of the product, on an
11 11 economic basis.

12 The raw materials, as you know, are:

- 13 a) water power
14 b) fossil fuels including coal, oil
15 15 and gas
16 c) atomic fuels (uranium and heavy
17 17 water) and
18 d) unknown or undeveloped fuels,
19 19 including solar heat.

20 The use and availability of these
21 21 materials is, for the most part, beyond the scope
22 22 of our knowledge to predict, and similarly, we
23 23 believe, beyond the knowledge of most interest groups
24 24 of citizens. Thus if asked, "What do you want?", the
25 25 natural answer is, "An uninterrupted supply of cheap
or free power, available on demand, with no



6 1 restrictions on use, and with no potential damage
2 2 to our environment". Since this dream world response
3 3 does not assist in any practical way in defining
4 4 future required facilities, the question must be
5 5 altered to something like, "Among the following
6 6 alternative choices, taking into account the associated
7 7 limitations in each case, which is your most acceptable
8 8 choice, and the reasons for your choice, on a
9 9 personal or group basis, also as it affects society
10 10 generally, and with consideration for the needs of
11 11 future generations".

12 Thus this submission wishes to stress
13 13 its belief that certain fundamental limitations
14 14 must be defined not just by electrically oriented
15 15 people, but by all those experts on other forms of
16 16 primary energy, including coal and uranium mining
17 17 suppliers. When these questions are answered and
18 18 alternative uses defined, (e.g., percentage of oil
19 19 production available for direct heating, transportation,
20 20 etceteras, as well as the generation of electrical
21 21 power), then the question may logically be asked:

22 "Which of these choices do you
23 subscribe to", rather than,

24 "Which transmission line through
25 whose property should take priority



7 1 over some other link in the chain of
2 supply"?

3 Who knows, at this stage, which comes
4 first, the chicken or the egg, or should it be the
5 generating station, the fuel to supply it, or the
6 location on which to build it?

7 Thus we suggest that the objectives
8 of this Commission will best be served by an initial
9 investigation designed to determine and define the
10 resource limits and alternatives to the supply of
11 electrical power, by other energy forms, so that
12 the public's participation in the final conclusions
13 on power planning need only involve those in the
14 democratic process of a discussion and final choice,
15 taken from several, less than perfect, but clearly
16 identifiable alternatives.

17 In the meantime we believe that;

18 1) Ontario Hydro should be allowed
19 to proceed with those projects which it is presently
20 planning, and which will ultimately be required, so
21 long as we have no effective means or intention of
22 limiting both population and industrial growth in
23 Ontario.

24 2) More representation by the elected
25 Commissioners' group on the Board of Ontario Hydro



8

1 would insure greater public representation in power
2 planning.

3 Thank you.

4 THE CHAIRMAN: Thank you very much,
5 Mr. Jackson. There is one point I would like to
6 raise. You mention "we take exception to what
7 appears to be the form of questioning", I wonder if
8 you could clarify that statement?

9 MR. JACKSON: I think, Dr. Potter,
10 I mentioned at the beginning that situations change
11 radically and perhaps if I had had the opportunity
12 of attending last night's lecture prior to
13 submitting the submission, it might have sounded
14 somewhat different.

15 The fact remains that from what was
16 received as the terms of reference with respect to
17 the items which the public would be requested to
18 discuss it appears to us that they are not as yet
19 sufficiently knowledgeable to be able to discuss those
20 items until such time as they are given alternatives
21 from which they may choose and discuss.

22 THE CHAIRMAN: This point, of course,
23 is very well taken and it's certainly been very much
24 in the minds of the Commission and I'm sure at some
25 stage of the Commission's work that alternatives



9 1 will be generated; but there are several more stages
2 to go through before then, not least the acquisition
3 of appropriate information and relevant information.

4 The suggestion that you have made is, as I say, very
5 much in the minds of the Commission.

6 MR. JACKSON: I certainly appreciate
7 your problem, Dr. Potter, however, I do hope though
8 that in some manner we can speed up at least a portion
9 of the results in order that we in the utility field,
10 and I think you might that there are many other
11 people in the same position as myself in other utilities
12 and perhaps even Ontario Hydro who are concerned about
13 the fact that they have requests now for power which
14 far exceed our former rate of growth regardless of
15 the building programs which are presently deferred
16 as a result of economic conditions; and in consequence
17 we would like some direction as to whether or not we
18 should attempt to do something or arrange for something
19 or request something to be able to restrict this
20 growth which presently we have no choice but to
21 supply.

22 THE CHAIRMAN: Thank you very much.

23 DR. STEVENSON: I wonder, Mr. Jackson,
24 if you would be prepared to assist the Commission
25 by perhaps offering us either an auxillary submission



10 1 or perhaps at a later time a brief of just why you
2 made the statement that your projected demands seem
3 to be well in advance of your trend.

4 I will be interested in knowing whether
5 this is just the growth of urban Burlington or whether
6 it is an increase in per capita use or whether it is
7 a shift to electric heating, or all of these.

8 MR. JACKSON: These are yet not
9 defined because of the changing trend in financing
10 and so on. However, it is my belief that the growth
11 of electric power not only in Burlington but elsewhere
12 is the result of public acceptance or demand for
13 electric heating as compared to their prior consideration
14 of oil and gas.

15 But I would be prepared to assist in
16 whatever manner I could at a later date. The question
17 too from a provincial prospective of the proper way
18 to heat a home or an apartment building is a matter
19 of great concern to the Provincial Ministry of Energy
20 who have commenced, as I believe I said last night,
21 an energy-balance study for the province. They are
22 looking at the various alternative field supplies over
23 the next couple of decades and trying to draw some
24 reasonable conclusions about how these should be used
25 in the most effective way; and I really think we all



11 1 have to wait for the result of that kind of research
2 and maybe the Commission will do some itself, but I
3 can realize from your prospectus that you are a
4 little bit at sea as to whether it is in the provincial
5 interest to permit this shift to electric heating.
6 What is the broader picture, I think you are asking us.

7 MR. JACKSON: This is perfectly
8 true. We recognize the problem that research is
9 required in order to answer this question, but we
10 have it on our shelf right now and everything that
11 we accept is increasing the load which may ultimately
12 be found to be in the wrong direction.

13 MR. COSTELLO: Is part of this
14 load coming from bulk metering installations,
15 Mr. Jackson?

16 MR. JACKSON: Oh, yes, all kinds.

17 THE CHAIRMAN: Thank you very much,
18 Mr. Jackson. Mrs. Jones, I am sorry we sort of
19 leap-frogged you. I know you are here in time. We
20 advanced the time a little bit and I apologize for
21 doing so.

22 MRS. A. H. JONES: Dr. Porter, and
23 members of the Commission. I am really pleased,
24 Mr. Chairman, that the Regional Municipality welcomes
25 you to Hamilton-Wentworth. If you have time at the



12

1 end of your afternoon hearing and are not too restricted
2 at dinner time, we would be glad to have you slip
3 over across the road to our offices to sign our
4 guest book. I realize you might be restricted, but
5 we will keep in touch just in case.

6 I would like to say, on behalf of our
7 Region, that we are just delighted that this particular
8 Commission has been established. We congratulate
9 the province on seeing the need for it and although
10 I was not able to attend your speech last night, and
11 regret that, because of another commitment, my staff
12 were there and I have had very excellent reports, I
13 might say, on the impact of that meeting.

14 Perhaps I should begin by outlining
15 the boundaries of Hamilton-Wentworth and I presume
16 that you have the brief we submitted to you in hand
17 and if you will turn to the end you will see some
18 maps and I think the second last map probably has
19 the names of our communities on it.

20 We were established by Act of the
21 Legislature in June of 1973 and the City of Hamilton
22 along with its neighbouring municipalities that
23 were in the County of Wentworth now form the Regional
24 Municipality of Hamilton-Wentworth. You will see
25 on the right, the Town of Stoney Creek, which is



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1 a combination of the Town of Stoney Creek and the
2 former Saltfleet, with which you might be familiar.
3 To the south you will see the Township of Glanbrook
4 which encompasses the former Binbrook and Glanford.

5 On the west you will see the Town of
6 Ancaster, which is substantially the same and out
7 further you will see the Township of Flamborough
8 which was an amalgamation of four municipalities;
9 the Town of Waterdown with which you will be familiar;
10 Flamborough West and East, and Beverley. Then you
11 can see the Town of Dundas substantially the same,
12 nestled in the Valley of Dundas.

13 We encompass some 400,000 square miles
14 and we serve 400,000 of the best people in Ontario.

15 I have with me Mr. Mohammad Afsar
16 who is our planning engineer and who really is responsible
17 for the basic presentation of the brief and the brief
18 has been set out to all council members for their
19 comment and unanimously endorsed.

20 I don't propose to read the whole brief
21 in actual substance, but I would like to paraphrase
22 it as I go through.

23 By way of introduction, I would like
24 to point out that while we recognize this as a
25 preliminary hearing we will of course be presenting



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1 further submissions to your main inquiry and our
2 general concerns are listed under ten categories, I
3 think, but we found we had lumped two together and
4 now we have nine categories and I would like to
5 comment on them.

6 It is our understanding that Ontario
7 Hydro contemplates a 7% overall provincial load
8 growth and they have projected a 99.96% reliability.
9 We, because we are in a heavily industrialized area,
10 where in Ontario as you well know more than 70% of
11 the electricity generated is used by industrial and
12 commercial sectors, we certainly are concerned here
13 because of our heavy reliance on industry and commerce,
14 for the jobs and for taxes that the load growth be
15 related to our particular growth.

16 We are one of the regions among others
17 along this lakeshore. Most of the industrial growth
18 is among regions and we would hope that our particular
19 growth and particular projections, our long range
20 land use plans would be considered in the overall
21 projections of Ontario Hydro.

22 I think this relates maybe to what
23 the gentleman ahead of me was saying that Hydro has
24 to know what municipalities are doing growth-wise and
25 we want to state that we want to be a part of that.



1 We also emphasize our concern, as
2 you have already mentioned, about the shortages in
3 oil and gas. We also would like to think that any
4 new technology such as the nuclear power generation
5 would be researched pretty thoroughly before we
6 rely on it, but we really think that is something
7 you are already concerned about.

8 So, based on those concerns, we have
9 specific areas of concern and the first one, A, I
10 would mention number (i) only because you have already
11 mentioned that a research project was going on with
12 regard to the availability and so on of gas and oil.
13 We want to be sure, as I emphasized a little earlier,
14 that the load prediction criteria of Hydro should
15 be compared with the aggregated future land use plans
16 of the regional municipalities and that the location
17 of the power generating stations be reviewed based on
18 input from regional municipalities, because we are
19 responsible to the people here for over-all planning.
20 But the various municipalities are responsible for
21 zoning and so on and we would like to be a part of
22 any Hydro planning in order to make our planning
23 effective.

24 Item B, of course, we are concerned
25 about the reliability of service and we do suggest



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1 that the possibility of inter-provincial and national
2 transmission grid should be investigated. At the
3 moment I understand that we are related to Quebec
4 only in Canada and to the south, and we have some
5 concerns about that.

6 With regard to bulk power generation,
7 we think there is some explanation to be given to
8 the public with regard to the capital cost comparison
9 of generating stations using fossil fuels and nuclear
10 fuels, the factors effecting the availability of those
11 fuels, the operational costs. Generally the public
12 is not really aware and this Commission hearing I
13 know will bring many of these factors out.

14 Item D, we are concerned about
15 transmission and aesthetics and this is a very major
16 concern of ours. The quantitative analysis of the
17 impact on agriculture, for example, loss of production,
18 the inconveniences to farming operations.

19 The visual impact is of importance to
20 the people who live there. We don't feel that that
21 has received full attention in the past although my
22 work on the Parkway belt would indicate to me that
23 Hydro is more concerned than it was before on that.
24 An example we have here in our Region is the unsightly-
25 ness of the transmission line along the Beach strip in



17 1 the City of Hamilton.

2 We have some concern also about the
3 impacts on environmentally sensitive areas particularly
4 on wildlife. And the location of main transmission
5 lines in relation to load centres and utilization
6 of joint corridors and we of course did notice that
7 that has been suggested in the corridor south or
8 at least down as far as the Halidmand-Norfolk area,
9 through our area and we are pleased to see that.

10 We feel that standards should be
11 established for landscaping and improvements withing
12 the hydro's right-of-way.

13 Item E, the rate structure generally
14 the public is not totally aware of the reasons
15 and the justifications if the rates are to be increased.
16 We hear about it in the paper and we know there is
17 a Energy Board hearing and submissions are asked for
18 but generally we feel there is some lack of information.
19 We do feel that Ontario Hydro should establish markings
20 for the resale of power with other utility companies
21 which they supply.

22 With regard to the environment, item
23 F, we can't help but wonder about emissions from
24 thermal stations and nuclear stations and what their
25 impact is on the quality of air. We would like to



18

1 know more about the need for heavy water plants and
2 what their impact is on economy and environment;
3 how the rise in temperature of water bodies can be
4 effective and therefore affect our aquatic life;
5 what radio activity might be produced; and contingency
6 plans related to nuclear safety. Generally the
7 public is concerned about all of these things, and
8 we put them forward to your consideration .

9 With regard to conservation which
10 is one of our other responsibilities, we realize that
11 garbage is a great problem these days, it is even
12 a problem here. I know that many people are citing
13 what to do with it. If there are any studies going
14 on with Hydro regarding the substitution of garbage
15 refuse in coal fired stations; the development of
16 policies to encourage building and lighting designs
17 which use less electrical energy, I think we are
18 sometimes always appalled at the amount of energy
19 that is actually used in some of these buildings.

20 What we would like to see concern for
21 the storage of energy and research we feel should be
22 undertaken to tap solar energy and the employment of
23 wind for power generation.

24 I realize that there are some houses
25 which are being sponsored right now in that connection



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1 and it may well be that some results will be beneficial
2 from that, would be beneficial for your consideration.

3 The socio-economic factors cannot
4 help but affect every citizen who lives in Hamilton-
5 Wentworth. When Ontario Hydro goes on the capital
6 market, it affects the borrowing that municipalities
7 have to do for other things such as water and
8 sewers and can effect it adversely. In fact, we
9 look to see what Hydro is borrowing before we decide
10 to go on the market. We realize that Hydro itself
11 creates a great deal of employment, a good indirect
12 effect on the economy and has impacts on customers
13 and the economy of changes in the costing and pricing
14 of electricity. We, of course, like to see people
15 employed and have jobs in our area and we do appreciate
16 the effect that Hydro has in that connection.

17 The next item I would like to put
18 forward is the need for formal communication links
19 between the Regions and Ontario Hydro on a continuing
20 basis. We have our technical joint committees
21 established with the gas and Hydro people and we
22 have a great deal of co-operation in our area and
23 I want to emphasize that; but more than ever it is
24 important that that communication link be established.

25 Our Regional Municipality is in the



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1 process of preparing its Official Plan which might
2 be placed before the government by the end of 1976.
3 This will be an over-all broad brush plan that will
4 indicate our growth areas, our population growth
5 possibilities, our industrial expansion possibilities
6 and so on and during the course of your main inquiry
7 we would hope that more information would lead to
8 that on specific projects directly affecting us
9 which we would be able to submit to you.

10 At the moment we understand there
11 are some new projects on the Hydro program. There is
12 the second transmission line between the County of
13 Bruce and Nanticoke. There is a transformer
14 station in Hamilton at Stirton and also at Dundas
15 at Horning Mountain Junction and King Forest Park;
16 and there is some area in Harper's Junction.

17 We would like to think that when these
18 stations are being build that we would be communicated
19 with to express our degree of concern with regard to
20 the environment, with regard to safety.

21 Now we have submitted to you our
22 preliminary plan on the back showing our environmentally
23 sensitive areas which we certainly hope you will take
24 into consideration in your review and we have also
25 in the first map given you the trends as they appear
to us at the moment, the trend for our pattern of



1 development which will show you where we expect to
2 have residential growth, industrial growth and
3 commercial growth and where the limits of developed
4 areas already exist, of course, with which you would
5 be familiar.

6 I want to emphasize that that is
7 merely one trend. In the course of this year
8 following we may well discover the alternatives which
9 we would prefer, but again that is for the main
10 inquiry and not for this preliminary discussion.

11 Now, if you have any questions I
12 can't answer, Dr. Porter, I am sure Mr. Asfer would
13 be glad to give you those answers, especially if it
14 has to do with heavy water or nuclear energy; but
15 that in substance is our preliminary brief.

16 THE CHAIRMAN: Thank you very much,
17 Mrs. Jones for an extremely comprehensive statement
18 of issues. I don't think you have omitted many
19 relevant ones.

20 May I also mention that I hope the
21 Commission will take advantage of your kind offer to
22 receive us in your offices at the conclusion of this
23 meeting. Time being available, we will certainly
24 do just that.

25 Some of the points you made in your
submission relate to education essentially and this is



1 well recognized by the Commission and hopefully we
2 will, within the next few weeks, launch a program,
3 the major thrust of which will essentially be in the
4 educational area.

5 We hope, for instance, to have six
6 pamphlets prepared aimed perhaps at high school
7 student level, Grade 9 and 10, and this is certainly
8 one of the things we will be doing.

9 Hopefully, too, in connection with
10 your next submission, the main inquiry; and we are
11 delighted to hear that you will be making such a
12 submission, we are assembling a good deal of
13 information in our library at 14 Carlton Street in
14 Toronto and again within a few weeks we may be able
15 to announce the operation of our information bank
16 which will provide fairly widespread access, and by
17 widespread I mean geographically, widespread access
18 to information which the Commission is assembling.

19 Of course, this cannot be completely
20 comprehensive. The comprehensive part of our
21 information will be contained in our library and any
22 members of your staff and yours, Mr. Planning
23 Engineer, will be very welcome at the Commission
24 offices.

25 I'm sure that my colleagues, in view



1 of the comprehensive nature of your submission will
2 have some questions for you but I am equally sure
3 they won't relate to the production of heavy water.

4 MRS. JONES: I learned a great deal
5 about heavy water in the past.

6 Dr. Porter, I welcome those comments
7 about education and I think the public generally will
8 be pleased.

9 MR. McCAGUE: Mrs. Jones, you referred
10 to the 7% projected growth.

11 MRS. JONES: Yes.

12 MR. McCAGUE: Do you have a projection
13 for this municipality?

14 MRS. JONES: Our population has not
15 been growing in the way we had expected, perhaps. I
16 think it is something like below 2% at the moment -
17 less than 1%, Mr. Asfer tells me.

18 Hamilton, as you can appreciate, has
19 only begun to blossom in the last 7 or 8 years because
20 earlier than that we had some problems with urban
21 development and so on and it has just started to grow.

22 Now we of course recognize that while
23 we may say we are less than 1% and below the
24 provincial average we have to compete with Toronto
25 and Mississauga and all those places which have been
boosting the provincial average.



1 I think we will have a far better
2 answer for your question after we complete the
3 regional plan because it really depends on what the
4 Council wishes to encourage. We have areas where
5 there could be growth, considerable growth; some of
6 these are, at the moment, no-growth municipalities,
7 and I think once we have our Plan completed we will
8 be able to tell you better on that.

9 MR. McCAGUE: Thank you.

10 DR. STEVENSON: Mrs. Jones, I'm sure
11 you read the Financial Post. I think if I were in
12 your position I would be interested in the very
13 bullish article that appeared in this week's Post on
14 the steel industry. It says here that the big three
15 steel companies are launched in the biggest expansion
16 to date, planning indicate 40% to 50% jump in
17 domestic steel requirements by 1980. They say that
18 Ontario, because of its pre-imminent industrial
19 might will represent close to 60% of the total
20 anticipated 21 million tons on the steel market at
21 that time.

22 So for a steel city, in an atmosphere
23 generally in this review of not very much excitement,
24 the steel industry stands out as an exception. In
25 fact, that is the title of the article.

MRS. JONES: Thank you. I will take
that back to Council tonight. I appreciate the



1 education I have had.

2 THE CHAIRMAN: Thank you, Mr. Jones,
3 very much indeed for helping us this afternoon.

4 Is Mayor Victor Copps here?

5 May I first announce publicly the
6 gratitude of the Commission in connection with the
7 honour you did us yesterday afternoon by giving us a
8 civic welcome. We appreciate it very much. Thank you,
9 sir.

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MAYOR VICTOR K. COPPS: Thank you, Doctor Porter; we were glad to do that. We don't always receive visitors from Toronto with such open arms.

THE CHAIRMAN: I imagine that Mme. Solange Plourde-Gagnon had something to do with that.

MAYOR COPPS: Yes, as a former Hamiltonian, she is very influential with us and certainly was part of the motivation that prompted us to entertain you a little bit.

It is like a lot of things on our City Council. Even the get-well cards are only carried by a vote of 11 to 10, or something like that.

We have been looking forward to your visit and I am very pleased to see such a large group here today. It indicates an interest in the work that your Commission is going to be doing.

I believe that the purpose of this tour is to find out from the public what things you should study really at the later, more detailed hearings you are going to have.

In that spirit, we don't have a very expensive submission today, just a couple of pages that we have sent you but it outlines some of the ideas of our people of the City of Hamilton as to what you



1 should be looking at and giving the province some
2 direction as to how to plan for power provision in
3 the future.

4 The City of Hamilton welcomes the
5 opportunity of submitting a brief to the Royal
6 Commission on Electric Power Planning and submits the
7 following.

8 In keeping with the Federal Government's
9 programme on Immigration, and the trend of immigrants
10 to the centres where basic industries are located, such
11 as the City of Hamilton with its two steel mills, as
12 well as a number of major secondary industries
13 including tire manufacturing, electrical appliances
14 and farm implements, the increase in population in the
15 Hamilton Area will continue for the unforeseeable future,
16 which would indicate the need for continued expansion
17 of electrical power in this area of Ontario.

18 To this end, the City of Hamilton
19 submits that it is vital not only to Hamilton, but to the
20 users of the products of the basic and secondary
21 industries in Hamilton that continued research and
22 study be carried out to ensure that the basic
23 materials required to generate electricity including
24 fossil, gas, water and nuclear energy are available, and
25 that generating plants be developed using the present
methods plus new methods that hopefully will be



1 developed with technological advances to be made in the
2 future based on a continuing research programme to
3 be carried out by Hydro.

4 It is worthy of note that large
5 municipalities in Europe are supplementing their
6 electrical power supply by generating plants
7 powered by refuse burning incinerators and this avenue
8 should be studied with Ontario Hydro assisting larger
9 municipalities in developing this supplementary source.

10 It is further submitted that discussions
11 take place on a continuing basis between the Hydro and
12 the users of electrical power, including industrial,
13 commercial and residential to ensure through Royal
14 Commissions of this type that the public is informed
15 at all times thereby preventing the panic-like
16 atmosphere that prevailed during the fuel shortages that
17 developed in other parts of the World during 1973 and
18 1974.

19 I might add in connection with the
20 suggestion of incineration being used to provide
21 electric power since Mrs. Jones was on just before
22 me representing the Hamilton-Wentworth Region this is
23 one of the great problems this city is having just now
24 with our neighbours in the region, the need for landfill
25 sites and dump sites which is causing a great problem
in the area because they are so unwelcome. Somewhat



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1 similar I guess to the situation in Toronto where
2 Metro seems to want all the neighbours to accept its
3 garbage in the dumps outside of the Metro area and we
4 maybe have a similar situation here; so if there can
5 be technology developed to utilize incineration to
6 produce power and at the same time dispose of the
7 garbage instead of having to pile it up on a dump in
8 a neighbouring municipality that will be a great
9 service to Hamilton-Wentworth, the Region as well as to
10 the City, and we hope that will be explored fully in
11 your studies and by the Hydro people later on.

12 We are looking forward to preparing
13 something in some detail for the later hearing, Mr.
14 Chairman, and we will be getting that ready to submit
15 it to you.

16 THE CHAIRMAN: Thank you, Mr. Mayor.
17 I think my colleague, Bill Stevenson, has some
18 comment on the garbage disposal problem.

19 DOCTOR STEVENSON: I don't know how
20 well known the Watts from Waste programme is. It is a
21 joint programme of the Ministry of Energy, the Ministry
22 of Environment and Ontario Hydro. Maybe there are one
23 or two other ministries in there too.

24 But the plan is that one of the eight
25 units at the Lakeview generating station will on an



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1 experimental basis be fed a combination of shredded
2 refuge from the City of Toronto and powdered coal.
3 I believe the experiment is to commence soon, I don't
4 know exactly when. The problem has been in the
5 processing of the garbage as I understand it, the
6 shredding and getting rid of metallics and glass and
7 so on but they are going to fire it into the boilers
8 and see what happens.

9 I believe that the estimate is that it
10 should use about 5,000 tons a day and there are great
11 hopes.

12 Now, the problems are that the boiler
13 was not designed for this purpose and the halogens
14 created by the burning plastics and garbage bags, the
15 green plastic bags, will corrode the boiler tubes.
16 There doesn't seem to be much question of that. If
17 you are building a power station to burn garbage, I
18 gather you build it cheap and simple knowing that in a
19 few years it will corrode and you build another one.

20 But that is the kind of problem that
21 Hydro faces, using the existing stations to burn
22 garbage but there is no question, apparently, Saint
23 Louis and so on, European countries, have done it for
24 years and it represents apparently quite a potential
25 for solving two problems at once.



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1 MAYOR KOPPS: I can be sympathetic to
2 the problems because we have an incinerator here that
3 is somewhat revolutionary in that it combines various
4 processes and produces steam from the incineration
5 process. It is called SWRU and it has become almost
6 a dirty word we have had so many difficulties with it,
7 solidwaste reduction unit and they have had a lot
8 of trouble sorting out the refuse, the glass from the
9 metal, although there is a programme there which is
10 noteworthy whereby the metal is recycled from the
11 garbage and sold to the de-tinning plants in the City
12 so it can be used again in the steel industry; but the
13 operation has never been able to achieve its capacity
14 which I think is about 600 pounds of refuse a day
15 because of the coathangers getting caught up in the
16 production line and things of that nature which they
17 did not seem to contemplate in arranging the crushers
18 and so on. It was a bit too sophisticated to do what
19 it was supposed to do but I believe that gradually,
20 although I am afraid at great expense, the difficulties
21 are being overcome.

22 There have been quite a few visitors
23 here from Europe particularly to look at this operation
24 because it is unique in the field and we hope that
25 before too long all the kinks will be out of it so that



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1 it will achieve the objective that it was built for,
2 when it was built by the city. Upon the formation of
3 the region, we turned it over to a somewhat unwilling
4 recipient I might say, the regional municipality, which
5 is operating it now as part of the garbage disposal
6 process. Under the Regional Bill 155, incineration
7 became the responsibility of the region but garbage
8 pick-up remained a responsibility of the City. I
9 suppose the government, charitably looking back on the
10 terrible garbage strike that we had about three years
11 ago where we had the longest garbage strike in Canada,
12 it went on about three months through the record heat
13 months of June, July and August, and looking back on
14 that the province very kindly decided to leave the
15 garbage pick-up with the City and they turned the
16 incineration over to the region.

17 MR. COSTELLO: Mr. Copps, I had
18 forgotten that you had that installation. We have a
19 similar thing in Quebec City. Did they have the same
20 problems or was it designed better or did they have
21 less coathangers?

22 MAYOR COPPS: Their problems were
23 probably worse because they are bilingual.

24 THE CHAIRMAN: Mr. Mayor, may I just
25 comment, so are you.



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MAYOR COPPS: We appreciate your receiving the submission, Mr. Chairman, and we are glad to have you here and as I say glad to see so many out listening to your work and to the different presentations.

THE CHAIRMAN: Thank you very much, Mr. Mayor. We are privileged by your presence and we are grateful for your submissions. Thank you.

Is Mr. Panter here? Would you come forward, please?

Just before Mr. Panter, I would like to introduce Mr. Robin Scott who I mentioned earlier. He is of course the Commission Counsel. Glad you made it, Robin.

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MR. RAYMOND B. PANTER: Doctor Porter

and members of the Board.

1 Ladies and gentlemen, I wish to
2 introduce the subject of vertical integration in the
3 energy supply.

4 Ontario Hydro, as the name implies,
5 began as a supplier of electricity from hydraulic
6 power, and furnished entirely by one of the world's
7 greatest waterfalls on the Niagara River. Under-
8 standably, it seemed to the founders of this
9 enterprise that the mighty potential of Niagara would
10 satisfy our needs of electricity for a century. The
11 very success of this adventure, however, led to its
12 own inadequacy; for as new generating stations were
13 added to the supply, demand was multiplying. Besides
14 this, the Province of Ontario was growing at a rate
15 beyond expectations. The Ontario Hydro Electric
16 Power Commission diligently endeavoured to keep
17 abreast of power demand in technology, research and
18 construction. No less than seven power generating
19 stations have harnessed the flow of water over the
20 escarpment in the Niagara Region of Ontario; each
21 succeeding plant exceeding its predecessor in size,
22 capacity, and technical advance. Yet hydraulic power
23 (Hydro) as a sole source of electric supply has
24 proven hopelessly insufficient to meet our present
25 needs, and we are now compelled to learn other ways
which, until now, have not been imperative, at least



2/2 1 in capacity and scope. We have enjoyed the luxury of
2 a tremendous water power supply to turn our turbines
3 and carry the main load of our electric generation.

4 Coal fired generating stations were
5 built as auxiliaries to help with part time assistance
6 during emergencies, or peak load periods, but old
7 reliable Niagara carried the main load unfailingly
8 day and night. Thus, unlike other less fortunate
9 Power Companies, Ontario Hydro had the opportunity to
10 engage in leisurely experiments with other energy
11 sources, such as coal, natural gas, deisel propulsion,
12 furnace oil, nuclear reaction, solar energy from the
13 sun, wind power et cetera, all the while have the
14 assurance that if any, or even all of these tests
15 proved a failure Niagara could carry the load.

16 But now, figuratively speaking,
17 Niagara is a tired old man. The time has arrived
18 when other means and methods must be established to
19 carry the main load, twenty-four hours a day, three
20 hundred and sixty-five days a year, without a
21 scheduled shut down for servicing, and without a
22 breakdown. I believe it only fair at this point to
23 draw attention to the excellent performance of Ontario
24 Hydro throughout its entire history, having gained a
25 worldwide reputation for leadership in the development



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1 of a technology based on the production of electricity
2 from the power of gravity. It is with no loss of
3 pride, therefore, that the Ontario Hydro Electric
4 Power Commission might well be advised, at this time,
5 to follow the lead and example of other power
6 companies which have reached their goal by other
7 avenues. It is the intention of this submission to
8 hopefully point a finger to practices carried on by
9 others, which, by their adoption would prove
10 advantageous to Ontario.

11 The power problems of Ontario may
12 well be compared with the neighbouring state of
13 Michigan. Thirty miles south of Detroit is located
14 the 3,200,000 K.W. coal-fired generators of Detroit
15 Edison Company, serving a power demand similar to
16 that of our own province, and located similar to
17 Nanticoke on the fringe of Ontario's Golden Horse
18 Shoe. Like Nanticoke, its coal is mined in the
19 Pennsylvania-West Virginia region, its entire supply
20 passing through Pittsburg enroute to Detroit, a
21 distance of 325 miles, almost identical with the rail
22 distance to Nanticoke via Buffalo. But here the
23 similarity ends. Detroit Edison has moved towards
24 vertical integration.

25 To explain the principle of vertical
integration let us look, for a moment, at our



2/4 1 gasoline supply. When you choose a brand of
2 gasoline you find that a company has prospected for
3 oil, drilled oil wells, pumped oil, transported that
4 oil, usually by pipelines of which it is a part
5 owner, or by tank cars which it owns, refines the
6 oil in its own refineries, delivers gasoline in its
7 own trucks to its own service stations, and you
8 purchase a product that has been produced in its
9 entirety, at every stage, by one company. I am
10 suggesting that Ontario Hydro adopt this principle,
11 as have several other power suppliers.

12 In July 1968, Detroit Edison opened
13 new mines in West Virginia to supply itself with
14 coal; built its own railway (Waynesburg Southern) to
15 transport this coal exclusively in Detroit Edison
16 trains to its own Michigan plant. There are several
17 examples in Canada of Consumer controlled transport
18 by rail. Almost 25% of all rail tonnage in Canada
19 moves on the Quebec, North Shore and Labrador
20 Railway to Set Iles, Quebec, and the mines, the
21 railway, and the steel mills are owned by one company,
22 the consumer. Coal also is mined in the Crows Nest
23 area of Alberta from mines under lease to Japan; is
24 transported by unit trains leased to the Japanese,
25 and taken to Japan in Japanese ships, all under the
control of a single consumer. There are many other



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1 cases which could be cited to give ample evidence of
2 the practicability of this system, but time does not
3 permit their review just now.

4 I feel compelled, however, to point
5 out that when Nanticoke plans were drawn up the
6 prevailing data of that time indicated the economic
7 desirability of transporting by ship, based perhaps
8 on research by Dr. W.E. Mooz of Rand Corporation in
9 1967. But technical advancement has changed this
10 advantage. In 1973, Mark L. Smith, Traffic Research
11 Manager of Missouri Pacific Railway found that unit
12 trains moved coal at a lower cost than any form of
13 water transit. His report has not been refuted.

14 In conclusion I would offer three
15 suggestions to Hydro for the future:

- 16 1. The best fuel source should be utilized;
17 and we find Northern Alberta offers a
18 clean burning fuel within our own country.
- 19 2. The best method should be employed to
20 bring it to us; Unit trains on a
21 vertically integrated system embracing
22 mines, rails and generating stations.
- 23 3. The best method of waste heat disposal
24 should be employed - location of thermal
25 plants at Sault Ste. Marie, Sarnia,
Brockville and the disposal of Nanticoke



2/6 1 effluent into the Welland Canal via the
2 old feeder canal from Dunnville would give
3 Ontario's Inland Waterways year round access
4 to the sea.

5 Thank you gentlemen.

6 THE CHAIRMAN: Thank you very much,
/etg 7 Mr. Panter, for a highly original and, if I may say
8 so, highly articulate and literate submission.

9 I personally have no questions on it.
10 It is a very far reaching proposal and will obviously
11 deserve a considerable amount of study. Perhaps Bill
12 Stevenson, the economist on the team, might have some
13 points to raise.

14 DR. STEVENSON: It is evident to me,
15 Mr. Panter, that you are a student of, among other
16 things, coal supply questions; and there is nothing I
17 can tell you I am sure that you don't know.

18 The problem with coal from Alberta is
19 not just a question of technology and economics but a
20 question of very serious environmental battles now
21 going on in Alberta between those opposed to the
22 strip mining and foothills coal - just one problem.
23 The other question is quasi economic and Alberta seems
24 determined to establish a commodity price equivalent
25 for coal prior to allowing large movements of coal to
Ontario boiler use and cooking use; so there are some



1 problems there which go beyond the ones you raised.

2 Now, the question of moving coal,
3 whether it be by slurry pipeline in solution with oil
4 or with water or by unit trains has been a subject and
5 is a subject of a great deal of Provincial Ministry of
6 Energy research in conjunction with the railroad, with
7 the TransCanada PipeLine and with the oil companies
8 and I'm a little more dissident about commenting on
9 your third point. I find that quite interesting and
10 perhaps we will have to get in touch with you and
11 talk about what is behind your observations there.

12 One other point, on vertical
13 integration, I think Hydro would argue that its purchase
14 of the entire output of some mines owned by the U.S.
15 Steel Company in Pennsylvania would represent an
16 example of the backward linkage that you referred to
17 here. This will not offer Ontario Hydro more than
18 about 15% of its coal requirements but at least it
19 gives it some assurance over some portion of its coal
20 that its costs will be based on auditable cost
21 increase in the production of the coal rather than on
22 some world commodity value of that coal.

23 MR. PANTER: The speakers before me
24 have raised the question of the ecology and, we will
25 use the familiar phrase, air pollution. Now, we have
known for 80 years that we have lignite coal generally



1 up in the Temaskaming Region but we have always been
2 told, this is a kind of a dirty fuel and we would not
3 want to use it. We could use it if we were pressed.

4 But the trend seems to be now to use
5 the very finest fuel so that West Virginia coal mines
6 are being closed down and the Burlington Northern
7 Railroad is opening their very large deposits of coal
8 in Eastern Wyoming which might very well be described
9 as cattle country. It is not even as well developed
10 as Saskatchewan and it lacks railways and they have to
11 build about 200 miles of railway into eastern Wyoming
12 because the fuel there is a cleaner fuel.

13 I believe with the emphasis on the
14 air pollution problem that Hydro will have no choice
15 but to select the cleanest fuel that it can find and
16 then have the problem of figuring ways and means to
17 get that fuel to us.

18 I'm just presuming that Hydro is not
19 prepared to buy the cheapest fuel just because it is
20 cheaper, rather than the cleanest fuel. I may be
21 wrong, sir.

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1 DR. STEVENSON: On lignites also a very
2 substantial technico-economic feasibility study was
3 made of the Ontawanna lignites. I believe it is a
4 public study, although I have said that before without
5 checking it. The resources would seem to supply about
6 1,000 megawatts, that is a plant 1/6 the size of
7 Nanticoke for 30 years solid, there isn't much in the
8 sense of Ontario Hydro's vast requirements but there is
9 some and it may be at some stage it will be exploited.

10 MR. PANTER: The reason I disregarded
11 nuclear fuel about 30 states in the United States as
12 well as 3 provinces of Canada have coal supply in
13 various qualities but in a pinch we are never going to
14 run out of coal. That is, we might have to lower the
15 quality of coal that we use but we will never be out
16 of coal; and I don't think people are prepared to play
17 around with an inadequate power supply in this
18 province just because it uses maybe ideal fuels, helps
19 with our garbage disposal and solves other problems.
20 I think when a person presses a switch, they want the
21 110 volts to be right there and no playing around.

22 I approached it from that angle.

23 THE CHAIRMAN: Mr. Panter, too, on the
24 coal situation of course you will be aware of other
25 technologies emerging, gasification, liquification.



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1 processes some of which may be viable economically
2 by the end of this century and this is the period to
3 which the Commission of course is addressing itself.

4 We are very grateful for your submission,
5 and thank you very much.

6 Mr. William Scandlan.

7 FROM THE FLOOR: Mr. Chairman, for
8 those who don't know the speakers, would you mind
9 telling us what their background is.

10 THE CHAIRMAN: That is a very good idea.
11 I have not done it because I assumed that they might
12 perhaps tell us themselves but obviously they are a
13 very modest group so let me go back to Mr. Jackson -
14 Mr. Lloyd Jackson, the Burlington Utilities Commission;
15 of course Mrs. Jones was the regional municipality
16 of Hamilton-Wentworth; Mayor Victor Copps, of course;
17 Mr. Panter represented the Consumers' Association of
18 Brantford; and Mr. William Scandlan represents the
19 United Steelworkers of America.

20 MR. HARRY HIND: First of all, Mr.
21 Chairman, I am not Mr. Scandlan. I am here on Mr.
22 Scandlan's behalf. He was detained in Toronto and
23 could not appear here today. However, I do represent
24 the Steelworkers and my name is Harry Hind.

25 I am reading a brief which was



3.3 1 prepared by Mr. Scandlan and I will attempt to answer
2 any questions the Board may have.

3 Mr. Chairman and members of the Royal
4 Commission of Electric Power and Planning, ladies and
5 gentlemen. We are presenting this brief on behalf of
6 the more than 23,000 members of the United Steelworkers
7 of America in the Greater Hamilton area. These members
8 and their families represent close to 100,000 citizens
9 of this area, and obviously as consumers are indeed
10 interested in the Long Range Planning of Ontario Hydro.

11 Substantial rate increases in Hydro
12 Rates over the past several years have been viewed with
13 alarm by many users. The recent announcement by Ontario
14 Hydro that future rate increases in excess of 25% are
15 contemplated has further aggravated this concern.

16 During the few minutes we have at our
17 disposal we should like to pose a few questions and make
18 some observations.

19 Ontario Hydro seems hell bent on
20 massive capital expenditures, purportedly to meet
21 future hydro demand. It would seem that this
22 arbitrary position has been taken without consideration
23 of the effects to the consumers.

24 At least 50% of all Hydro is used by
25 large Industrial and Commercial enterprises. These



3.4

1 companies have means at their disposal to pass on the
2 effects of increased Hydro costs, but what about the
3 small Consumer.

4 One-third of our society lives on
5 fixed incomes, while another third have limited income.
6 Will this Commission consider the economic plight of
7 these individuals?

8 It must be obvious to this Commission
9 that our input to these hearings in no way can be
10 technical. As lay people in this field we can only
11 submit our opinions and observations. In no way do
12 we propose to debate against the expertise of Hydro
13 Engineers and Technicians. Ours would be an exercise
14 in futility, and we would not participate any further.

15 If on the other hand this Commission's
16 purpose is to consider consumer attitudes, concerns and
17 suggestions we would be willing to enlarge on the
18 points raised today at the formal hearings later on.

19 Hydro is a major and important energy,
20 but not the sole source. Oil and Natural Gas are equally
21 important and their development and resultant consumer
22 cost and related effects must be considered in an overall
23 National Energy Development Programme.

24 Natural Gas and Oil have storage
25 abilities. Hydro does not. Therefore, increased



3.5

1 Hydro generated must find an almost immediate market.

2 To some extent Ontario Hydro policy of
3 sale and transmission to other areas of usage; for
4 example, the Northern U.S. States. This of course
5 has its limitations which leads us to our next point.

6 Consideration of a National Power Grid
7 - because of our vast expanse as a nation, and
8 several Time Zones, what measures have or will be
9 taken to see if excess capacity could be transmitted
10 to peak areas across the nation?

11 The proposed Hydro expanded capacity
12 will mean new generating stations. Their location
13 and types, be it coal, oil, nuclear or whatever,
14 must be given serious consideration. The effects of
15 these new generating stations on the environment is of
16 paramount importance. We are all aware of the effects
17 of the James Bay and Churchill River Developments.

18 We cannot ignore the ill effects of
19 such disruption of wild life and our native peoples.
20 The quality of life must not be ignored merely to
21 satisfy greater usage.

22 Increased Hydro capacity means more
23 transmission lines. The erection of such facilities
24 must not be on the basis of expediency and costs.

25 Full consideration for the preservation



Scandlan (Hind)

3.6

1 of Conservation areas and prime agricultural lands
2 must be assured.

3 We shall follow your deliberations
4 closely and should we be of the opinion that we can
5 make useful input on behalf of our members we shall
6 do so in greater detail in due course.

7 All of which is respectfully submitted.

8 THE CHAIRMAN: Thank you very much,
9 Mr. Hind. You raised a point of whether or not the
10 Commission will consider consumer attitudes. This is
11 a very central concern indeed, One of the Commissioners
12 unfortunately, Mme. Solange Plourde-Gagnon, has not
13 been able to arrive yet, she is going to be
14 responsible for this aspect of our studies. In other
15 words, the consumer attitudes will be quite central.

16 This of course not only includes the
17 small user but also perhaps the big user and we also
18 will consider very much the whole problem of
19 conservation which again is an essential concern that
20 has been brought up on many occasions during our trips
21 around the province.

22 The questions you have raised are
23 clearly relevant to the work of the Commission and
24 I don't know whether any of my colleagues need any
25 clarification or not.



3.7

1 MR. COSTELLO: We are quite conscious
2 of the effect on the small consumer that he can't
3 pass on. It isn't necessarily true that industry can,
4 although they do their best as we all know. I was
5 reading in the paper yesterday about dumping of steel
6 and complaint from the Canadian steel suppliers but it
7 is a truism at some point in time they do their best
8 but you have to remember that big industries like
9 steel and paper are competing internationally and if
10 their basic costs are too far out of line, they don't
11 compete too effectively. I am sure you know that.

12 MR. HIND: I think what we are trying
13 to say in our brief is that possibly members of the
14 trade union movement, large industries, have at their
15 means some mechanism.

16 MR. COSTELLO: There are mechanisms.

17 MR. HIND: We are talking about the people
18 that have no means, the people on limited incomes, and
19 all we are trying to do is bring it to the attention
20 of the Commission.

21 DR. STEVENSON: I believe, Dr. Porter,
22 that this is the first union-sponsored brief out of the
23 more than 100 that we have had so I personally am very
24 delighted that the Steelworkers have responded; and
25 I say this partly for this reason. We are going to be



3.8 1 looking at some innovative methods of stabilizing
2 the peaks of Hydro's system. Obviously if you can
3 get increases in load factors on electric power
4 systems, if you can increase the night-time load and
5 flatten the day-time peak, you will be able with a
6 given capacity to provide more energy and this will
7 mean more loads can be served without additional
8 generating stations and transmission lines.

9 One of the problems that you run into,
10 if you start to think of greater incentives to
11 industry, to go to triple shifts and to perhaps stock-
12 pile a product at night for use during the day-time
13 so they can take certain operations off the line
14 during the day when Hydro needs the power for other
15 customers is the question of the reaction of workers,
16 more graveyard shifts, greater inconvenience, more
17 shift differentials of course will have to be paid,
18 but to get very far into this question you clearly
19 have to have some labour union dialogue and I am
20 hoping that we can take you up on your offer to work
21 with us as we get into some of these questions.

22 MR. HIND: We will attempt to cooperate.
23 If you are trying to get a response from me as to
24 my views as to a worker working the night shift as
25 opposed to days, weekends as opposed to during the



Scandlan (Hind)

3.9 1 week, I don't think I have to respond to that. You
2 could answer the question for yourself. Obviously
3 people do like to work days and have weekends off.

4 THE CHAIRMAN: Your mention of a
5 possibility of a national power grid too of course is
6 a very important suggestion which may look more and more
7 viable as the years come and certainly by the end of
8 the century, and this in itself as you will point out
9 does facilitate this evening out the peak demand levels.

10 Technology is certainly being developed
11 which might help with this problem. Of course it is
12 related, as you probably know, to the viability of
13 DC transmission and so on over long distances, so we
14 are very grateful. It is good that you in the
15 Steelworkers are thinking in a much more national and
16 indeed global vein than one might expect.

17 We are very grateful to you and, as
18 Dr. Stevenson said, we are certainly looking forward to
19 the next submission when our main inquiry gets going.

20 Any help we can provide in the way of
21 information and so on, you of course are very, very
22 welcome.

23 Thank you.

24 MR. HIND: Thank you very much.

25 THE CHAIRMAN: Is Mr. Grayorski here.



Serena (Grayorski)

3.10

1 I have been told that your submission will only take
2 about three minutes so I think we can fit it in before
3 the coffee break.

4 MR. GRAYORSKI: I am appearing for the
5 city of Burlington. I have been asked by Mr. Robert
6 Serena, Planning Commissioner, to present this
7 brief.

8 Mr. Porter, members of the Commission,
9 the city of Burlington welcomes the opportunity
10 extended by the Royal Commission on Electric Power
11 Planning to the public and local governments to become
12 involved in the electric power planning process.

13 The City of Burlington is prepared to
14 assist this Commission in its work and request that it
15 be kept informed on the Commission's progress and
16 future meetings.

17 Our delegation, which was present at
18 the Illustrated Discussion last night feel that the
19 City of Burlington is not in a position at the present
20 time to submit a detailed brief regarding the
21 Commission's terms of reference.

22 It is the intention however to give
23 consideration to the preparation and submission of
24 briefs as the need arises at future meetings.

25 Thank you.



3,11 1

THE CHAIRMAN: Thank you very much,
2 Mr. Grayorski. We will bear this in mind and we will
3 insure of course that all information relevant to
4 the Commission's work is sent to you and, incidentally,
5 sent to anybody that fills in this form and leaves it
6 at an appropriate place back of the hall.

7 At this point, ladies and gentlemen,
8 I think we should have a coffee break. Interestingly
9 enough, we are bang on time and this is the first time
10 in any meeting the Commission has held where we have
11 been on time and that means that those making
12 submissions have been very good to us.

13 So could we reconvene at, say, a quarter
14 to four, please.

15 ---SHORT RECESS.

16 ---UPON RESUMING.

17 THE CHAIRMAN: Ladies and gentlemen,
18 may we come to order, please.

19 Before we begin I would just like to
20 mention that both Mme. Plourde-Gagnon and our good
21 friend George McCague are both rather indisposed.
22 George I know had a temperature so he is obviously
23 coming down with the flu or something and Solange,
24 too, so they both asked me to apologize.

25 This is a rugged business, you know,



3.12

1 you have no idea. In fact, next week at this time
2 we will be in Kenora, won't we? I thought so.

3 Next on our list is Dr. Bob Jervis,
4 my colleague at the University of Toronto. You might
5 wonder why a Torontonionian should be presenting a
6 submission here in Hamilton. Well, as a matter of
7 fact, his group, the group at the University of Toronto
8 is collaborating with McMaster so in one sense at
9 least this is a joint submission and we are delighted,
10 Bob, that you were able to drive over from Toronto to
11 be with us.

12 Dr. Jervis is Associate Dean in the
13 Faculty of Applied Sciences and Engineering at the
14 University of Toronto and I think Director of a
15 special energy group which was set up in the University
16 about 18 months ago.

17 DR. R.E. JERVIS: Thank you very much,
18 Dr. Porter and Commissioners. I want to bring to
19 your attention at this relatively early stage of your
20 inquiries, some work on energy that has already been
21 going on in our univeristy and presumably likewise in
22 some other Canadian universities that have been in part
23 directed to the questions and issues before you within
24 your terms of reference.

25 Particularly the last one and one-half



3.13 1 years the University of Toronto was carrying on an
2 energy study which was much related to energy and
3 technology R&D but also to power system planning
4 and modelling.

5 I would like to make a couple of
6 general points. One is that I think that the existence
7 of groups like ours in the university provide a pool
8 of both expertise and willingness; people in the
9 several universities who are willing and interested
10 in working on the kind of studies of interest to you;
11 not only I think a certain technical expertise and a
12 research capability but also I would suggest a
13 potential for objective evaluation and study over a
14 broad spectrum of the competing technologies that have
15 to be blended together in the period of your interests.

16 We are not parties of the utility;
17 we are not suppliers of fuel and resources; we are
18 not manufacturing people but we do have some
19 engineering know-how. I think we can address
20 ourselves within one group to the disparate fossil,
21 fission, solar, wind power and so on, sources of
22 energy we may all have to blend together in some
23 appropriate mix in the period that you are looking at.

24 We have also had in our group work
25 going on on system planning, trying to model systems,



3.14

1 trying to decide the optimum size of power grids to
2 be linked together.

3 Under the initiative of several
4 engineering departments, University of Toronto,
5 was the proposal to do such a broad energy study
6 early in 1974 and the University of Toronto saw fit,
7 using some funds appropriate to this meeting-place
8 here, funds available from the Connaught, the proceeds
9 from the sale of the Connaught enterprise set aside
10 to do just this, to be seed money to encourage new
11 ventures and the kinds of things we might otherwise
12 not be doing, I must say a considerable investment of
13 money, to bring together a group of about 25 senior
14 engineers in our faculty from the chemical, electrical,
15 industrial, mechanical engineering departments and
16 a group of specialists in the Aerospace Institute.

17 What I have provided for you as a
18 brief and I hope, Mr. Chairman, that you and your
19 colleagues have this before you, is the introductory
20 parts of the results of this energy study, a preliminary
21 copy of which I have here in front of me, a 850 page
22 energy study.

23 To give you some of the background
24 setting I would just like to direct your attention to
25 what we call a preface to this energy study, about the



3.15

1 fourth page of your brief, some statements that go on
2 as follows:

3 The future development of energy
4 systems in Canada, and for Canada, is obviously of
5 immense and immediate concern. The satisfactory
6 shaping of Canada's energy future will have to be
7 based on the availability and deployment of an adequate
8 number of well-researched system options and
9 technological alternatives.

10 The impetus of this energy study
11 originated from a conviction in the Engineering
12 Faculty at the University of Toronto that, for these
13 reasons, a study of the many facets of our energy
14 systems would constitute a most important, long-
15 range research area. While the complex and inter-
16 related nature of energy systems requires a coordinated
17 approach of unusual magnitude and breadth, we are
18 convinced that in our Faculty we possess a combination
19 of its intellectual capability and experimental
20 research facilities, which is a valuable component to
21 be brought to bear on this problem.

22 From the outset, this study, a group
23 called the energy study group, consisting of 23
24 engineering professors and their senior research
25 associates and students decided not to seek a



3.16 1 single integrated solution to the energy problem, but to
2 pursue a rational set of alternatives, the future
3 deployment of which might well involve additional
4 economical, sociological and political factors and
5 this is obviously the mission of this Commission.

6 Further our studies did narrow down
7 to concentrate on the needs for energy research
8 relative particularly to Ontario as a massive energy
9 consumer but an area relatively poor in energy
10 resources. For this reason tidal power, biomass
11 energy sources, and geothermal were largely neglected.

12 I must add, too, that as a way of
13 bringing together some of our thinking and to
14 interact with others who had important roles in the
15 energy decisions to be made in this country, at an
16 early stage in our study in December of 1974 we organized
17 a three-day conference and workshop entitled "Canada's
18 Energy Future" to discuss current energy issues, the
19 setting of energy R&D priorities and the framing of
20 consensus recommendations for governments and for
21 industry.

22 This workshop is really quite
23 productive and had a good mix of academics, industry,
24 utilities and government representatives. Attached
25 to our report are the sets of very specifically,
concisely framed recommendations to government.



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1 To lead you through our study and
2 conclusions would take a lot of time. Mr. Chairman,
3 I merely plan to direct you to some of the topics that
4 are considered and laid down in research papers.
5 To this intent I have attached at the beginning a
6 table of contents of our energy study which, following
7 the introductory material, has research studies,
8 average length of 30 manuscript pages plus attendant
9 documentation grouped in the topics: energy modelling
10 and planning, which is one of the things of particular
11 interest to this Commission; Canada's energy system
12 modelling: simulation and optimization, Professor
13 Davison; planning the development of electrical power
14 systems: models for the evaluation of new conversion
15 technologies, by Professor Rogers who has been working
16 jointly with Ontario Hydro on modelling energy growth
17 and the interconnection of power grids; and a couple
18 of other topics on energy management.

19 There is a collection under fossil fuel
20 energy sources, that is not only to consider the
21 present existing technology but the need to accomplish
22 more efficient utilization of fossil fuels, coal,
23 oil, gas and tar sands.

24 Nuclear fission study, considering the
25 adaptation of future possibilities of the CANDU System



3.18

1 about which some of our staff are particularly
2 knowledgeable.

3 Fusion; solar and geothermal, that is in
4 generally new nuclear technology and to that I guess
5 we should add the MHD, the magneto hydrodynamics;
6 energy transmission systems and material required for
7 energy development.

8 These are all important components
9 and while obviously some are related to the hard core
10 technology of energy, we believe there is a need also
11 for a lot of system analysis as to how in fact we are
12 going to blend these technologies, how we are going to
13 meet the projected growth of the future.

14 I would direct your attention finally
15 to the section labelled "Summary" which is an
16 attempt in two pages to collect and present the
17 findings that are in detail laid down in this two-
18 volume report, by extract from it.

19 The massive energy investments
20 anticipated for Canada in the next generation, I
21 believe, and their ecological and social consequences,
22 require a greatly accelerated Canadian effort in
23 energy-related research and development.

24 This energy study is intended to be a
25 preview of the research and development requirements



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1 for utilizing our most feasible and economically
2 viable energy alternatives. It proposes in particular
3 specific assignments of the Faculty's resources of
4 expertise and facilities to contribute to meeting
5 these requirements.

6 The Study concludes, among its findings
7 that:

8 (a) a large increase in energy-related
9 research be done in places like the University of
10 Toronto and other universities in Canada and that this
11 is obviously warranted in view of the calibre and extent
12 of resources available in universities. Funding in
13 excess of \$1 million a year is called for in this
14 U of T projection. We believe this is both necessary
15 and reasonable to expect in view of the national
16 expenditure of about \$100 billion a year or the
17 Ontario expenditure of an additional \$25 billion per
18 year in the period of your interest.

19 As a fraction of the total energy costs
20 to do work to see that we deploy the proper technology,
21 that we base these massive energy installations on
22 appropriate technology, would represent only about
23 0.007 per cent of the energy expenditure.

24 (b) We think that research should
25 focus particularly on the following energy topics:



3.20 1 more efficient exploitation of Canadian fossil fuel
2 deposits; oil and gas, oil sands and coal;
3 advancement of future CANDU systems with attention to
4 breeding cycles, fuel and waste management and their
5 environmental and risk implications; improvement of
6 energy conversion, storage and distribution systems
7 with appropriate systems modelling and investigation
8 of both imminent, namely solar space heating and of
9 future new energy sources, nuclear fusion, MHD,
10 fuel cells, solar capture and geothermal.

11 We would like to stress that greatly
12 accelerated R&D is urgently needed not only to help
13 assure Ontario's energy future but to ensure that the
14 vast capital expenditures to be made in the next one
15 or two decades are based on careful assessment of the
16 technology and the weighting of the alternative energy
17 sources. Energy research spending in Canada should
18 therefore be increased very substantially, we suggest
19 by at least a factor of ten.

20 Mr. Chairman, while we will realize
21 that this Commission is not correctly to be a source of
22 funding a lot of energy R&D we think that obviously
23 technology is going to come increasingly into your
24 discussions and deliberations and I would think it
25 might well be a recommendation that you would want



3.21

1 developed in the detailed aspects of your inquiry,
2 those recommendations that are appropriate at the
3 various levels of government. We see that not only
4 research spending be done in the parties that are
5 committed to energy development, that is the oil and
6 gas companies and the utilities, but in fact that we
7 seek to fund such research in institutions such as
8 the Universities in the private sector, we might say,
9 in general who we would suggest with due modesty
10 might be able to bring an objectivity, the kind of
11 objectivity which is needed and sound engineering
12 judgment to see that we really look to the proper
13 energy development and in proper sequence.

14 Thank you, Mr. Chairman. I might just
15 say, I have here a preliminary copy of this report.
16 If the Commission would like to make a study in any
17 way of our findings at some later date, we can provide
18 the Commission with a full and final copy of our
19 energy study.

20 THE CHAIRMAN: Thank you very much
21 indeed, Dean Jervis. I can assure you that the
22 Commission will avail itself of this opportunity.

23 The role of the universities and the
24 work of Commissions of this kind is obviously
25 becoming increasingly important and as you so very



3.22

1 articulatesly stated that the University of Toronto
2 with some collaboration from McMaster, and I am sure
3 ties with other universities, has prepared a scenario
4 here for research which is certainly very impressive.

5 It perhaps isn't too well known and
6 this is perhaps the fault of the universities because
7 they are not very good at public relations normally
8 that the potential for innovative and creative work
9 right across the disciplines is very great indeed,
10 especially in universities like McMaster and the U of
11 T because of the wide range of offerings.

12 At the same time, of course, since the
13 thrust of this Commission is education, we recognize
14 again the centrality of the universities in performing
15 this role. The fact that students are being educated
16 as well as research being done, and the two are
17 absolutely bound together, you can't do much academic
18 research without the help of students or, let's put it
19 this way, the students very often act as the main
20 stimulant. That is on the one hand, and you don't get
21 very far with teaching especially in a dynamic subject
22 such as the energy field without a research activity
23 going on as an essential component.

24 So we are particularly delighted to
25 receive this submission. It is the first of its kind



3.23

1 that the Commission has had and hopefully we will be
2 able to capitalize certainly on the massive amount of
3 work that you have undertaken already; in fact, I am
4 sure we will be able to capitalize on it and perhaps
5 on that note I should perhaps let Bill Stevenson
6 comment.

7 DR. STEVENSON: Dean Jervis, I guess I
8 can only say that I wonder in some sense what is left
9 for us to do on the technological front, with the
10 massive amount of work that your group has done.
11 Actually, I say that facetiously. I never believed
12 for a minute that this Commission would be able to do
13 fundamental research in any of these areas. I think
14 in a very large measure our role is one of collating no
15 one work and making it publicly available in language
16 that is perhaps geared to an intelligent highschool
17 educated person.

18 It has been said today, and it has been
19 said in every meeting, that a Commission of this kind
20 has to present options to the public that they can
21 understand and make a choice on so I guess my question
22 to you is this. At what point would we be able to
23 ^a disseminate/synopsis written by our staff of your
24 group's work, properly credit it to your group and its
25 author and the Connaught fund of course.



Jervis

3.24 1 Would that be possible at an early
2 date or only after the completion of the final reports
3 or do you have any views as yet?

4 DR. JERVIS: I would like, as soon as
5 we can provide a proper copy of this to you, to get
6 reaction back from the Commission. I think you would
7 judge some of these papers, I am just reminding myself of
8 the content of the paper on solar space heating.
9 Professor Hooper, who is a Canadian authority if not a
10 North American authority in this is already building
11 a Province House. This paper is written just at that
12 level. Others are probably directed more at a higher
13 level. I would think those studies, documented here,
14 looking at the various components which are of interest
15 to you which could be turned into written, or re-
16 written if you like, into that format, I think could be
17 done at your request with very little additional effort,
18 simply a matter of digesting what is here.

19 Perhaps even your staff would want to
20 do it but I would suggest it would be appropriate,
21 probably one of the professors involved here would be
22 willing to take that as an assignment for you.

23 MR. COSTELLO: Dr. Jervis, thinking of
24 research and having to do with the more efficient
25 utilization of energy, in the known processes such as



3.25

1 pulp and paper and steel, I get the impression you
2 think maybe this is better left to the private sector,
3 or do you?

4 DR. JERVIS: What I was referring to
5 under that title, which was included in our study,
6 is addressed to improving technology and combustion,
7 this kind of technology; improving the efficiency for
8 example of the one process exists, it is used in
9 Europe for the liquifaction of coal, produces both a
10 liquid and a gaseous fuel from that. I think there's
11 work needs to be done there to improve the efficiency
12 of that; so I think we see that,
13 tar sands; also technology; the Clarke process being used
14 now has certain limitations, and produces a lot of
15 waste water. This we look at, more efficient
16 utilization of the bare energy resource, just to take
17 the existing fossil fuel. The thing is more at that
18 level than at the consumption level but there are
19 obviously things to be done at the consumer end which,
20 as you say, was in the industrial sector.

21 MR. COSTELLO: I have been trying to
22 get Dr. Porter out to Sheridan Park for about three
23 months and maybe I can take you with me when we go out
24 there. Thank you.

25 DR. JERVIS: Mr. Chairman, would you



3.26

1 permit me to make a short additional statement which
2 is outside of this topic.

3 THE CHAIRMAN: Of course.

4 DR. JERVIS: You might be interested
5 to know that a group of technical people, broadly
6 spread, representing AECL, Ontario Hydro, York
7 University, McMaster University, University of Toronto
8 and others have already been meeting as a kind of a
9 working group to plan a workshop and interaction
10 session next October, scheduled to be held at Chalk
11 River to consider the impact of the new technologies
12 on society and particularly some of the background
13 for us is from a Christian or religious point of view.

14 I am thinking that perhaps the
15 church and people interested in that should also
16 address themselves in part of the spectrum of the
17 sociologists, the philosophers, and I thought that
18 would give you this early notice if your Commission
19 is at all interested in the outcome of that. We will
20 have there international authorities in the areas,
21 three particular areas which are being discussed,
22 two of which before this Commission, I would say.
23 That is the impact of nuclear power development on
24 society; the environmental impact; and then the third
25 topic which raises concern is that of human



3.27

1 manipulation, but that also oversets - the effect of a
2 large utility taking a lot of the capital and the
3 money market and so on; these developments can all be
4 constraints, even the impact on people to be better
5 consumers, consume more, etc.

6 I thought it would be appropriate to
7 give you a notice, if this is something that the
8 Commission is interested in. There are various ways
9 in which we could benefit from support or interest
10 from the Commission. This has already passed the
11 discussion stage; we have sketched out the program
12 and have a number of international speakers that we
13 are in touch with.

14 THE CHAIRMAN: I can assure you, Dean
15 Jervis, that the Commission will be extremely
16 interested in this proposed workshop and I hope you
17 will keep us in touch. Thank you very much for your
18 contribution this afternoon, which has been a most
19 important one. Thank you.

20 I think Dr. George Collins has a bus
21 to catch and therefore I am putting him/ahead of the
22 Reverend Sam Mo and I hope the Reverend Sam Mo doesn't
23 mind. Do you mind coming after Dr. Collins?

24 Is Dr. Collins here? Good. It is true
25 that you have a bus to catch?



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DR. COLLINS: I want to get one, if

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possible.

3

THE CHAIRMAN: Right.

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DP/ab

1 DR. GEORGE COLLINS: My name is

2 Dr. George Collins and I am geologist particularly
3 interested in the raw material side of the energy
4 problem, particularly regarding oil, natural gas,
5 coal and uranium.

6 Last spring for three months I was
7 in Jedda, Saudi Arabia, in other words, I was
8 right on the doorstep in a study group there with
9 the United Nations and what I wanted to say today
10 is that it is the very opposite and this is an
11 academic conflict between myself and the University
12 of Toronto, the University of Waterloo and many
13 other people, but what I have to say is that there
14 is actually no shortage of fuels in the world. I
15 am talking of a 30 to 50 year time base.

16 I have worked in the oil sands for
17 six years from 1951 to 1956. I am at every out-
18 crop of the oil sands along the Athabasca River.
19 Dr. Clarke was just running an experimental plant
20 at Pitcherman in those days. I know how much oil
21 is actually exposed; I know processess that can
22 extract it and I also know the extent of the coal
23 in Western Canada and surprising enough, to reverse
24 our direction, the amount of coal in Nova Scotia.

25 I worked at Nova Scotia Technical



4.2

1 College as a research professor for six years -
2 five and a half to six years - by which time I was
3 studying for an advanced degree, but at that time
4 I visited all the mines; I know the coal structures;
5 and there is enough coal in Nova Scotia alone to
6 supply the needs of New England. Now, the coal
7 has some deleterious chemicals but there are methods
8 of extracting.

9 I just want to mention, one of the most
10 exciting methods is the oxygen economy. If the coal
11 is given for nothing, in other words, it is a material
12 in the ground. You actually buy oxygen in tank car
13 loads, multiple tank car loads, and bury it under-
14 ground.

15 There is no pollution. There is no
16 need to circulate the nitrogen and pollute the air.
17 You extract steam, generate the electric power
18 at the mill head, and transmit the power to
19 Boston.

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4.3

1 It is the most exciting economy but the oil companies
2 and the energy companies in Toronto, the people in
3 the Governments of the Province of Ontario continually
4 turn away from Nova Scotia.

5 I was in a major oil company, the
6 second largest oil company in Canada the other day
7 and the gentleman said, we will not go to Nova Scotia
8 because of the labour problem. It is just that
9 simple.

10 The energy is in the ground. The
11 coal at Springhill. Every minute 100,000 cubic feet
12 of air was pumped through the sands. 1% of that
13 was leaking. Everyday the mine was operated more
14 energy came through the sands in the form of methane
15 and natural gas - I am sorry I am going so fast, but
16 I was asked to -

17 I just want to say this one thing,
18 the natural gas in Springhill alone is enough to
19 supply the whole of the Maritimes. It is very
20 exciting and it is possible. The British have
21 extracted methane ahead of coal mining for years
22 and where I sat in Nova Scotia and asked them to do
23 it, they said it is uneconomical when they are doing
24 it in Germany and supplying all the energy for
25 coal mining for extraction purposes, they say it is



#4.4

1 uneconomical. The price works again. He says it's
2 uneconomical; it is not true.

3 I just want to go back to the one
4 point. I was in Saudi Arabia and very, very
5 annoyed at this one point mentioned, the high price
6 of crude oil at \$12.00. I want you to do a simple
7 division. Take \$12.00 and divide by 40 and you come
8 up with 30 cents which is the price of naptha,
9 high grade crude oil. You can put it in your
10 automobile.

11 It is very interesting, by the time
12 that gets to Canada it is up to 82 cents for your
13 gas tanks. 52 cents is taxation and a little bit
14 of the planning cost and 1 cent or 2 cents distribution.

15 In other words, divide the barrel
16 by 40; come up with the price of crude oil - very,
17 very little. It is disgusting to pay \$4.00 a barrel
18 - 10 cents was going to the crude price.

19 THE CHAIRMAN: Dr. Collins, excuse
20 me for interrupting, but I think you are a little
21 bit off the ---

22 DR. COLLINS: Yes, what I'm simply
23 saying is there is no limit to the amount of oil
24 available in the world today. I want to make the
25 one point; the whole continent has not been explored.



#4.5

1 There are no drill holes in the Antarctic which the
2 geologists say is the adjacent continent. This is
3 very effecting. I have worked in the Amazon; there
4 are two or three drill holes, that is all there is -
5 a major oil basin. The Andes, I worked in Columbia
6 with Intercol, Standard Oil of New Jersey, the whole
7 of the Yamas Basin has not been explored which goes
8 back to the problem of taxation and incentives.

9 That is the point I'm trying to get
10 at. There is no limit on oil and natural gas for
11 Canada for the next 50 years.

12 Everytime I turn on the television,
13 after nine years of working overseas, I come home
14 and practically go through the roof because someone
15 is saying there is an energy shortage. It doesn't
16 exist.

17 I have a farm in Beverley, and I
18 could drill a gas well there, a commercial gas well
19 and produce natural gas but I'm not allowed that.
20 I get down into Toronto and I can't even find the
21 gas rights, but utter red tape and confusion. This
22 is what I am getting to, there is no limit in fuel.

23 THE CHAIRMAN: We got the message.
24 I wonder if you have any other points which concern
25 this inquiry?



1 DR. COLLINS: Okay. There are
2 two more points that I want to make very quickly.
3 The very word "Hydro" when you are oversea, it
4 sounds very foolish. It should be the Ontario
5 Power Corporation. The very word Hydro sounds like
6 you are a blithering idiot when it is actually a
7 major power producer so actually you have got to
8 change the name and get into general energy systems,
9 the hydrogen economy and other sources of fuel.

10 THE CHAIRMAN: That, of course, is
11 outside our terms of reference.

12 DR. COLLINS: You can suggest
13 that there are many, many sources of power that
14 can actually be distributed.

15 The one thing that I wanted to mention
16 here is the previous methods that Hydro has used
17 in their ecological work and I think we can get
18 some review on this.

19 I was in on Dr. Solandt's transmission
20 line inquiry. It is a very interesting thing and
21 I have been asked by one of the Hydro men to play
22 it down a little bit, but the thing that intrigues
23 me is that they bring ecologists in from the United
24 States to plan for my grandson's future. I don't
25 like that.



4.7 1 There is 120 firms listed in Toronto
2 that do the same work and we bring an ecologist in
3 from the United States of America. That is not
4 good enough. In other words, I think we can plan
5 our own future in Canada.

6 The Beverley Swamp, which I live
7 on the edges of, it is going to be drained by the
8 Hydro Transmission Line 660 feet wide through the
9 swamp and Dr. Solandt's group says it is not going
10 to be drained. I know it is, as a geologist and
11 I will talk to anyone who's interested in blocking
12 that transmission line through the swamp because
13 that is a major source of water and water is just
14 about as vital as electric power.

15 The other thing I want to mention
16 there is the financing of the Ontario Hydro present
17 expansion. Being an internationalist, I know what
18 Luxembourg is; I know what Geneva is as a money source
19 and to raise money in Luxembourg the last bond
20 issue of Ontario Hydro, it is a very interesting
21 thing, they said they got a lower price coupon, 9½%.
22 But the thing to remember is that the people that get
23 that coupon don't pay any taxes in Canada.

24 Now, I have \$20,000 in the bank. I
25 will buy an Ontario Hydro Bond, if they will pay me



1 12% and I will tell you, 50% of it will go back to
2 the people of Canada as a tax, therefore, you are only
3 paying 6% net. I think this financing outside
4 of Canada without issuing the bonds in the Province
5 first, is somewhat close to corruption because
6 the problem of financing overseas involves very big
7 financing beyond what little Canadian operations
8 can understand. There is the one thing.

9 I think the idea in the future of
10 breaking the hydro down into two corporations, one
11 for the consumers and one for industries, would
12 be a very important thing. I just want to contribute my
13 wife's contribution here. She is an economist. She
14 thinks we have paid for our distribution system.
15 Now, industry can pay for its own. She is not
16 going to pay any more.

17 We heat by Hydro. You mentioned
18 two things today, the idea of off-peak power. For
19 \$29.00 or \$59.00 we should be able to get a switch
20 to heat the house with off-peak power, but we use
21 the power at noon-hour. In other words, it is
22 a simple solution. Not a million dollar solution
23 to the peak power problem, these timing switches.
24 I only take power during 12 hours. Simple, sell
25 /at them Canadian Tire and hook them up. That is the



1 one thing they mentioned there, the idea of consumption.

2 I think the most exditing thing, is there
3 is not shortage of power. By reducing taxation there
4 will be energy systems evolved in Canada within days,
5 but it is the tax load. Overseas practically any
6 corporation can get 10 years tax free development
7 loans but in Canada you have to be the Shell Corporation
8 to work with Hydro to go and prospect for uranium.
9 I did not get a chance to bid on that job.

10 Thank you very much.

11 DR. STEVENSON: There are som many
12 points you have raised that are provocative, I
13 would not know where to start.

14 Just as an example, I can't help
15 but observe that the Task Force Hydro gave a couple
16 of hours consideration to the name that should attach
17 to the new Ontario Hydro Corporation when they were
18 writing this series of reports and it seemed at
19 one point everyone was agreed that the Ontario
20 Electrical Corporation was a logical name.
21 The president of Ontario Hydro, Doug Gordon, had been
22
23
24
25



10 1 sitting there quietly all this time while other
2 people bandied around alternative names and he finally
3 said, well, you know, you can call it whatever you
4 like, but in this Province as long as we are around
5 people will continue to pay their Hydro bill so
6 we said - ah, Ontario Hydro was.

7 Just on financing, that is a interesting
8 point you raised. I think as a general proposition
9 obviously Hydro should borrow as much as it can
10 domestically before it goes abroad. There are a
11 number of good reasons for this, not the least of
12 which is as you say --

13 DR. COLLINS: It is cheaper.

14 DR. STEVENSON: On that basis
15 to Canadians it is. However, there is also the
16 point that Ontario Hydro unlike many other borrowers
17 can borrow abroad at very favourable rates. You
18 don't agree?

19 DR. COLLINS: I don't agree. When
20 they pay the Duetsch Mark premium of 30% - that
21 /but
22 is cheap initially when you pay a 30% premium on
23 the rise of the Duetsch, it is not good economics.

24 DR. STEVENSON: They got caught on
25 the German evaluation as did many other borrowers.

DR. COLLINS: It will continue.



11

1

DR. STEVENSON: If for example

2

Hamilton wished to issue a bond in New York it

3

could perhaps do so but it would not be able to

4

get Hydro's rates, so they should be able to tap

5

the Canadian markets.

6

DR. COLLINS: They should be offered

7

in Canada first.

8

DR. STEVENSON: That's right.

9

DR. COLLINS: On a favourable

10

excessive coupon. 12% is nothing when inflation

11

is 13%. They are stealing 1% of my money anyway.

12

That's what it amounts to.

13

MR. COSTELLO: 12% coupon, you know,

14

and half of it ends up with those fellows in Ottawa.

15

DR. COLLINS: That is true.

16

THE CHAIRMAN: Thank you very much,

17

Dr. Collins. I'm glad you could come.

18

The Reverend Sam Mo.

19

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DP/jc

RCEPP
Hamilton
Dec. 2

5.1

1 --- (Reverend Mo requests that his brief be read.)

2 MR. ROBIN SCOTT: This is a Study
3 contained in a green binder with approximately six
4 pages of typing and a map which I assume is the same
5 map as is on the lectern.

6 I will read from the text and start
7 with the first page.

8 It is entitled:

9 "4 Chain Hydro-Electric Power Plants
10 and Waterway.

11 Location at Angus, Ontario.

12 Watershed, 77,230 square miles of
13 Upper 3 Great Lakes (including Lakes
14 Superior, Michigan and Huron).

15 An average flow of 416,000 cubic
16 feet per second.

17 Height of each dam, 300 feet.

18 Water head of each dam, 250 feet.

19 Units in each plant, 16.

20 Number of dams, 4."

21 How am I doing?

22 REV. MO: Fine.

23 MR. SCOTT:

24 "Capacity of electricity in each
25 unit, with three groups of 36,000



5.2

"kilowatt transformers, step this up to 230,000 volts for the long-distance transmission.

Total energy of 64 units output within 24 hours, 127, 180, 800, 8,000 kilowatts a day. Its annual potential power is equal to 7½ million tank cars of fuel a year (46 billion 420,000-odd kw. a year).

Forebay, in case every turbine catch full load of water so that seven miles long reservoir canal will be necessary.

Pumping stations, for flood control, pumping facilities will automatically work out with those control gates which have set on Sault Ste. Marie, Straits of Mackinac on Lake Michigan, and Sarnia, Lake Huron.

Spillway, tailrace discharged water passes through the waterway down into Hamilton Harbour.

Waterway, and the purpose of this waterway is to release discharged water into Lake Ontario that aid to solve



5.3

1 "the Seaway traffic problems and in
2 this way the waterway will become a
3 shortcut to the Upper Great Lakes
4 which 8 locks is co-operated for
5 lifting 6 in Collison and 2 in
6 Waterdown."

7 The first page ends with:

8 "Planned and designed by Sam Mo,
9 Hamilton, Ontario."

10 And the scale is I:100,000 (I presume the map).

11 Mr. Mo, would you like me to read the
12 rest of the presentation? Mr. Mo would like me to
13 refer to some of the most important parts of the
14 presentation, and you will have to correct me as we
15 go along, Mr. Mo, because I will have to communicate
16 with you to know what is important in this
17 presentation.

18 First of all, you refer to the recent
19 increase in the price of oil in the international
20 market and you indicate Ontario's place as an important
21 industrial province in Canada with 34 per cent of our
22 population and about 50 per cent of the nation's
23 manufacturing products are located here. This is our
24 capacity to manufacture, about 50 per cent.

25 You point out that of this industrial



5.4

1 capacity in Ontario, a good deal of the factories
2 depend on oil for fuel and you point out to the
3 Commission it is not only important to look at the
4 increase in the cost of oil, but also the increase
5 in the cost of electric power.

6 Because of these two increases, and
7 presumably you must also have the increase in the
8 cost of coal in mind as well, since Ontario Hydro is
9 a large user of coal for generating purposes, you
10 are saying one way to soften the impact of the
11 higher energy prices, I take it, is to look at
12 additional schemes for utilizing hydroelectric power,
13 because it is a renewable resource.

14 I take it in the case of hydroelectric
15 power there is a high capital cost to begin with but
16 the operating costs, once you pay out the capital
17 cost, is reasonably low. As you point out, in the
18 case of a hydroelectric installation, the cost of the
19 fuel itself is nil.

20 Mr. Chairman, I wonder -- the text
21 in Mr. Mo's paper goes on for about another ten pages.
22 I think I underestimated it probably because I never
23 learned to count, and I was wondering whether we
24 could accept Mr. Mo's paper, perhaps not necessarily
25 give it an Exhibit number, because this is not a



5.5 1 formal hearing in that sense. Perhaps I could
2 read the conclusion and if I could have perhaps 30
3 seconds I could consult with Mr. Mo and he could
4 indicate if there are any other matters that he would
5 like me to emphasize in the course of the paper.

6 Could I do that, sir?

7 THE CHAIRMAN: Of course.

8 MR. SCOTT: Mr. Mo, could I read the
9 conclusion in your paper?

10 You conclude that Ontario is an
11 important province in our country. There are more
12 than 34 per cent of the nation's population and 50
13 per cent of the nation's manufactured products are
14 in this province and the hydroelectric power providing
15 for the need will be greatly needed.

16 You indicate there are many problems,
17 such as the energy crisis, unemployment situation,
18 the high cost of fuel for industries and home heating,
19 air pollution, and a hydroelectric plant perhaps can
20 solve these problems or at least lessen them. You
21 go on to say someone might think this project is so
22 great and several problems might not be overcome.
23 However, rapid advancement in the science of soil
24 mechanics have contributed to the efficient design
25 of the types of large earth moving machines which will



5.6

1 make the construction of the hydroelectric project
2 that you have described more feasible, I take it.

3 There have also been improvements
4 in the essential water-type membranes or cutoffs,
5 methods of chemical grouting in porous strata have
6 advanced greatly and special material such as
7 vitimum compound and ventenite have made it
8 possible to dry an impermeable seal to greater depths.
9 There is nothing impossible but it is only time can
10 tell.

11 Perhaps, Mr. Chairman, could I ask
12 Mr. Mo just one or two questions to develop his
13 technical qualifications to design a hydroelectric
14 undertaking of the kind he describes?

15 Mr. Mo, what is your education and
16 experience in the technical field?

17 REV. MO: I myself have noticed that
18 we have an energy crisis in this country, you know.
19 Actually, every part is a problem. We are no
20 longer to enjoy the cheaper power so even though two
21 years ago they embargoed oil to the Western world
22 and then the people in the country, the whole industry
23 broke down and if we continue to have the oil crisis
24 our production will cost very high.

25 So with the cost of the production up



5.7

1 so high we have no doubt it will cost higher, so
2 then you get a higher cost of living, so, you know,
3 you only want to have more money so you raise the
4 wages, and then the Government try to control the
5 price when, you know, your production cost, because
6 of the oil price, the cost of the production goes up.

7 THE CHAIRMAN: I am sorry to
8 interrupt, but Mr. Scott asked you what your
9 professional qualifications were to consider even
10 designing a project of this magnitude. In other
11 words, have you been trained as an engineer?

12 REV. MO: You know when you go to the
13 Theological College you have a lot of room -- how to
14 know -- this kind of thing -- so then you study
15 different fields of science.

16 MR. SCOTT: You have been studying
17 this for quite a long time?

18 REV. MO: Yes, for quite a long time.
19 You know, in 1959 I saw the Falls, I saw them in
20 Odessa, -- the geological circle. Something else --
21 you know the Falls comes down 167 feet from the
22 Niagara River down to the bottom. This is what
23 the geologists can't explain.

24 THE CHAIRMAN: Reverend Mo, why this
25 question was raised here, in your paper your units



5.8 1 are just not consistent. You talk about producing
2 electricity of 1,472,000 kilowatts per second and then
3 you multiply this by the number of seconds in a day
4 and say you will then get 127 million megawatts in
5 24 hours. Of course this, as people in this
6 electric power technology and so on know, that is a
7 meaningless statement.

8 I did write to you but unfortunately
9 the mail strike obviously delayed my letter, suggesting
10 that perhaps you should discuss some of these units
11 you have been using here with people perhaps in the
12 Engineering Department at McMaster or indeed if you
13 visited Toronto, our own research people, but I do
14 assure you that there are these inconsistencies in
15 the units you have been using and it makes it rather
16 difficult to understand.

17 I wish we had more time perhaps to
18 pursue this but I don't think this is the environment
19 in which we should do it because it is a very special
20 system you have raised.

21 We realize that it is something that
22 you are very dedicated to but I earnestly suggest
23 that you should seek some help and advice perhaps
24 from our own people or the people at McMaster.

25 Would you like to do that? I mention



5.9

1 this because we still have three more written
2 submissions and time is moving along.

3 Do you agree to that?

4 REV. MO: (partially unintelligible)

5 I find the water different, from Upper Lake Huron
6 333 feet different. You know the lake area, Lake
7 Ontario, have, you know, 293 feet different so they
8 produce -- why not use the 333 feet? Should we not
9 do something?

10 DR. ROSEHART: Excuse me, Reverend
11 Mo, one of the problems in your submission, and I can
12 assure that the Commission is going to be looking at
13 hydraulic power potential if there is any further
14 potential left in Ontario, is the fantastic flow of
15 water you foresee in your diversion.

16 The flow in the Niagara River, I
17 believe, is something like 220,000 cubic feet per
18 second. In your diversion you are going to have
19 something like 400,000 cubic feet per second. I
20 think if you could find that much water some of the
21 industries in Northern Ontario would be interested
22 in knowing where it is coming from.

23 I think in the interest of time,
24 this is not the place to debate these figures, but I
25 can assure you that the Commission's scientific



5.10

1 people will be examining them and will be getting
2 back to you.

3 For your information, a similar
4 submission was brought up at a Toronto meeting where
5 a chap was interested in a diversion from Lake Simcoe,
6 I believe, and one of the real problems is you can
7 have heads, possible potential difference between the
8 two locations but you also have to have a flow, but
9 in any way -- in any rate, we can debate it at some
10 further length.

11 MR. SCOTT: Mr. Chairman, I presume
12 the Commission probably already has a copy of the
13 written submission?

14 THE CHAIRMAN: Yes.

15 MR. SCOTT: So if we already have a
16 copy of this submission, Reverend Mo, it won't be
17 necessary to borrow your copy.

18 REV. MO: (partially unintelligible)
19 I quite appreciate, you know, we need cheaper power
20 in our province at the present time, otherwise we
21 have a reduction in our home. In Canada we have a
22 lot of coal and uranium and oil, we have enough, but
23 when you come to the world market then you raise
24 the price as high as our country, otherwise ---

25 MR. SCOTT: I think that Reverend Mo's



5.11

1 submission does raise this issue, Doctor Porter.
2 Finite quantities, as the previous speaker indicated,
3 we have to have but having them in the ground and
4 having them available at a reasonable price is quite
5 another thing.

6 Thank you, very much.

7 THE CHAIRMAN: Thank you very much,
8 Reverend Mo. Mr. Babb? Mr. Babb is of the
9 Halton region.

10 MR. C.E. BABB: Good afternoon,
11 Chairman Porter and Members of the Commission. My
12 name is C.E. Babb. I am manager of the Policy
13 Division of the Planning Department of the Halton
14 Region, the Regional Municipality situated
15 contiguously east of Hamilton-Wentworth.

16 I represent the region from strictly
17 a staff standpoint and wish to relate to you very
18 briefly a few comments about electric power planning
19 and something called "Planning for the Halton Region".

20 As I understand from reading your
21 literature and then re-reading particular passages
22 of it today, you want people such as myself to do
23 the following: 1, to advise about issues; and 2, to
24 let you know our feelings as to how you should proceed;
25 and 3, comment about public participation.



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As to issues first, there is a host of electric power planning issues facing the residents of Burlington, Oakville, Halton Hills and Milton, the area municipalities which are included within the Regional Municipality of Halton, and these issues doubtless will be exhibited to you more cordialantly than I can exhibit them to you by both individuals from the public and by individual governments and also by legislators or politicians.

The main issue which staff people working in preparation of a meaningful Regional Official Plan phase is one of having available and mobilizing the resources, the staff, the expertise, the dollars to see to it that many of the same kinds of things which you, as a Royal Commission, are investigating are also going to be properly investigated from a regional perspective, that is, from a more local perspective.

You are going to deal with, for example, the threat to good farm land brought about by the construction associated with the distribution of electric power and so are we.

I don't regard the above as necessarily a conflict situation with the Royal Commission studying the impact of power distribution



5.13

1 on the landscape, but conflict arising because you
2 are doing it and so are we.

3 I think it simply is interesting
4 that you, as electric power planners, and we, as
5 regional planners, are dealing with many of the same
6 things and we are going to be dealing with many of
7 the same clients and many of the same publics.

8 There is one important issue or
9 challenge which I must admit is not directed to
10 informing you about the conduct of your work, rather
11 the issue or challenge relates to how we are attempting
12 to proceed with our work. We are attempting to deal
13 with the very tough problem of producing an Official
14 Plan for one region, Halton, that among other things
15 are mainly concerned about two main streams of
16 effort, 1, sound technical analysis dealing with
17 cost estimates, evaluations, alternatives, performances,
18 impacts, et cetera. All this is one key building
19 block but as important as technical analysis is we
20 need to get into the most essential but easy to
21 neglect work area, namely that of having the technical
22 staff, and I might add, the people available who
23 really know the administration and organization to
24 spend the great deal of time necessary to understand
25 the people, the agencies, the policies and the



5.14

1 program on the Provincial scene who have such great
2 influence on both local and regional municipalities.

3 I could continue further with issues;
4 one incidentally is a kind of cluster of issues
5 affecting the Halton Region, stemming from the fact
6 that Halton is, to some effect, simply territory over
7 which, or through which, or under which, numerous
8 kinds of facilities and activities pass which have
9 great dire impact on the region and its people, but
10 at the same time only slightly benefitting local
11 residents. There are expressways running through
12 Halton, power lines, gas pipelines, oil pipelines,
13 et cetera. They crisscross the region. Determining
14 what the impacts are likely to be from these types of
15 activities and what can be done to forestall the
16 dire impacts will be a most important thing for us
17 to be dealing with. You will be dealing with it
18 too, in addition.

19 Those are some of the issues from
20 strictly a kind of a staff point of view relative
21 to electric power planning, then, let's say, regional
22 planning.

23 As to the second task, discussions,
24 letting you know our ideas as to how you should
25 proceed, I think I would have no comment at this time.



1 As to public participation, my only
2 comment is that you have been effective so far. You
3 have the resources, but more than that, you seem to
4 have the will, the talent, the ability and the resolve
5 to create a climate of mutual respect between you and
6 the public.

7 THE CHAIRMAN: Thank you, very much,
8 Mr. Babb. Very clearly, the various regional planning
9 processes that are ongoing at present will be of
10 great interest to the Commission; and I am sure when
11 the appropriate time arrives, we will be receiving
12 inputs in more detail and that we look forward to
13 a submission, certainly, and the main enquiry when
14 we get moving into much more detail.

15 We are grateful to you for coming
16 forward at this time and perhaps you would let us
17 have this submission in writing for the record.

18 Thank you, very much.

19 DR. STEVENSON: I find it encouraging,
20 Doctor Porter, that in the areas where there are
21 regional governments, I think without exception we
22 have heard from the Planning Commission or from the
23 Administration of the Region. This was true in
24 Sudbury and today in Hamilton and now in Halton and,
25 you know, it is so evident that we are grappling



5.16

1 together with the absence, if you like, of a stated
2 Provincial-Regional Plan.

3 We are all trying to do our work in
4 the context of what we think might be the Provincial
5 objective in terms of land use planning. I am not
6 sure about your regional planning staff but we have
7 had the assurances of the Treasurer's Office, where
8 Regional Planning for the Province is done, that his
9 staff and ours will work closer together to make sure
10 that what we are doing is consistent with the trend
11 developing planning at the Provincial level.

12 I hear you say today that you would
13 like this co-operation to extend to your group and
14 I find that very encouraging.

15 THE CHAIRMAN: Thank you very much,
16 Mr. Babb. We will be seeing you in the future, I
17 am sure.

18 Mr. Hammond of Hamilton Hydro?

19 DR. STEVENSON: Mr. Hammond was
20 referring to the fact that on an open-line show this
21 morning I had a tough question from one of his
22 customers that I could not handle so I waited for the
23 10 o'clock news break, made a quick telephone call,
24 got the answer and gave the caller a nice, precise,
25 quick, authoritative answer five minutes after ten.



Cas. 6
DP/ko

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MR. HAMMOND: Mr. Chairman, while this is not an official submission from our Commission it does carry their full blessing as evidenced. It is along the same line as referred to by our Vice-Chairman, Mayor Copps, today in his presentation. We will join with the Association of Municipal Utilities and the Ontario Municipal Electrical Association, pooling our resources to make a more formal brief on behalf of a good many of the Hydro utilities.

However, at this time I would like to make a few observations and conclusions that I have arrived at after being associated with the Hydro Electric System of Hamilton for a period that has now entered its fiftieth year, the latter 22 years as General Manager.

The view has been expressed by many people that we are proceeding at too rapid a pace in developing future generation of electrical energy. Besides a matter of cost of generation, there is the cost of transmitting the energy to the eventual customer. There are also questions of pollution, effects on the environment and the means of transmitting, be it either Overhead or Underground.

While agreeing that all these factors are indeed worthy of consideration, I am firmly



6.2 1 convinced that the over-riding factor should be, a
2 full and efficient supply to the customer when he
3 requires it. It is this simple fact rigidly adhered
4 to over the past years that has helped to provide the
5 means whereby our people enjoy a very high standard
6 of living and has made our industry efficient and
7 highly competitive.

8 An example of this is in our own case,
9 whereby our average monthly load has increased from
10 317,609 Kilowatts in 1960 by some 131% to a monthly
11 average load of 720,836 Kilowatts in 1974. Yearly
12 increases varied from 7/10 of 1% in 1969 over 1968
13 to 9.7% in 1966 over 1965. Our total Kilowatt hour
14 sales in 1974 amounted to 4,889,683,018 of which
15 12.2% was used by our Domestic, 12.3% Commercial and
16 75.5% Industrial Power.

17 These figures, sir, I think will
18 illustrate that the bulk of our load is industry
19 which has its beneficial effects in our viewpoint.

20 Service of these tremendous loads was
21 made possible by adequate and advanced planning for
22 generation and transmission by Ontario Hydro and for
23 distribution by our own local System, enabling our
24 domestic and commercial customers to be served at the
25 time they needed energy for new homes, condominiums,
apartment buildings and stores. Also it enabled



6.3 1 industry to make necessary expansion to provide a
2 steady and increasingly high employment.

3 The prosperity of our industry is
4 reflected in all levels of society, and felt not only
5 locally, but across the Province and Canada as a whole.

6 As it is a matter of record that a lead
7 time of 10 to 12 years is necessary to bring in new
8 generation of power to the point that it is transmitted
9 to and used by the eventual customer, it would seem
10 a matter of common sense to insure that a steady and
11 sufficient supply of electrical energy continues to
12 be furnished to our customers in the future as it has
13 in the past in order that they may also enjoy a high
14 standard of living and remain competitive in the
15 manufacture of our various industrial products.

16 Now, Mr. Chairman, I have a graph here
17 that shows our monthly loads from the wartime year
18 1945 up to the present and I think that it illustrates
19 my point of the rapid development we have had in this
20 part of the province and that we were extremely
21 fortunate that by advanced planning Ontario Hydro was
22 able to give us the loads to pass on to industry.

23 Down at the bottom here, sir, there is
24 1945, 130,000 kilowatts and at the month of February
25 1975 you can it is up to about 776,000 kilowatts. It
is a good reflection of our progress and I think it is



6.4 1 indicative generally of the necessity of having ample
2 supplies when needed across the province.

3 For future, I have a listing here that
4 we are banking on in 1976. These are promised loads
5 and are indicative, unless the economy goes off to the
6 devil and everything collapses but these are things
7 we have discussed and are under consideration for
8 extending: 1976, 20,200 kilowatts additional; 1977,
9 37,800; 1978, 53,000; 1979, 18,000; and then due to
10 some expansion by one of our local heavy industries,
11 88,000 in 1980.

12 Beyond that we have not progressed, but
13 I think, sir, that is indicative that we cannot delay
14 in making decisions and our worry here and what we
15 would like is some assurance that our industry who
16 provide such a great number of jobs is going to be
17 assured, and we can assure them, that they can expand
18 their plants to keep the goods coming and keep up our
19 export markets and provide employment for such a large
20 number of people in this region.

21 Thank you, sir. That is all I have in
22 my presentation.

23 THE CHAIRMAN: Thank you very much,
24 Mr. Hammond. I note you are in your fiftieth year
25 with the Hamilton Hydro System. All I can say is you
must have started at a pretty young age.



6.5

1 MR. HAMMOND: Well, sir, maybe I don't
2 look quite as old as I am or feel sometimes.

3 THE CHAIRMAN: I suppose you will be
4 able to let us have these curves? Presumably much of
5 the growth you are talking about is industrial, or am
6 I right?

7 MR. HAMMOND: The project is industrial,
8 Mr. Chairman. We have normal growth of around 3% to
9 4% overall. These are power loads that have been
10 spoken for that we will have to make exceptional
11 considerations for transmission and maybe sub station
12 to provide the additional loads.

13 Of course all this is worked in con-
14 junction with Ontario Hydro who have to bring it and
15 dump it into our station.

16 THE CHAIRMAN: Thank you very much
17 indeed, Mr. Hammond. No doubt we will be hearing from
18 you at a subsequent time.

19 MR. SCOTT: I have a copy of the graph,
20 Mr. Chairman.

21 THE CHAIRMAN: Thank you very much,
22 Robin.

23 Mr. George Marshall.

24 Would you identify your group, if you
25 represent one, Mr. Marshall?

MR. GEORGE MARSHALL: Yes, Mr. Chairman.



6.6

1 First of all, I am a homeowner in the City of Hamilton;
2 secondly I am a landowner in a small way; thirdly I am
3 a producer of fossil fuel in a small way, still
4 developing and, fourthly, I am a landowner in a small
5 way in another adjacent area. My interest at this time
6 really is on behalf of the consumer in the residential
7 sense.

8 Mr. Chairman and Members of the Board,
9 this presentation is a short summary of general rate
10 reform by municipal hydro utilities. At this time we
11 as consumers recognize the fact that roll-back of hydro
12 rates is impossible. However a change of metering
13 system could help to bring about a change in living
14 habits so that power consumption peaks are not as steep
15 for the utility. General rate reform should alter
16 current metering systems and reward the consumer for
17 using lower rate power consumed at off-peak times and,
18 conversely, penalize for heavy draws at peak periods
19 when the utilities are near capacity.

20 In the long run this approach could
21 help slow the pace at which consumer rates increase.
22 With lessening peak demands the utility should need
23 fewer small and uneconomical booster plants which rely
24 on fossil fuel.

25 The following items may be of some use
to the Commission:



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One, lower residential utility rates
for off-peak consumption, and conversely

Two, higher residential utility rates
for peak period consumption.

Three, general rate reform for
residential use to:

- (a) encourage hydro conservation;
- (b) encourage hydro use at off-peak times;
- (c) encourage remedies for rising power billings;
- (d) encourage better home maintenance;
- (e) encourage change in living habits resulting in less draw peaks;
- (f) encourage rewards with off-peak usage;
- (g) discourage purchase of luxury items;
- (h) discourage sudden peaks of usage.

Four, materials and equipment which
contribute to lower power consumption, and this also
includes gas, oil and coal, or increased efficiency,
should receive more consideration under the Income Tax
Act and the Sales Tax Act.

Such examples might include insulation,
caulking, weather stripping, storms, furnace filters,
window shades, attic vents, dryer vents, humidifiers,
and multi-feed furnace fans.



6.8

1 Five, luxury items should have the rate
2 of sales tax reviewed to discourage general consumer
3 use. Some examples might be instant-on TV, trash
4 compactors, electric blankets, pool heaters, electric
5 toothbrushes, ladder warmers. I think some of these
6 were touched on last night.

7 Six, items of heavy current draw such
8 as water heaters, electric resistance heaters, clothes
9 dryers, air conditioners and dishwashers should be
10 regulated and automatically turned off at peak hours.
11 These I would call deferral loads.

12 Seven, municipal utilities should be
13 encouraged to use two-rate meters which would:

14 (a) Sample peak demand at random
15 periods which should encourage load balance by
16 consumers, and

17 (b) Penalize for load imbalance by
18 billing procedures.

19 Eight, conditions may now be favourable
20 to explore one other choice in billing procedures,
21 although far reaching in scope, and that would be
22 seasonal pricing of utility rates.

23 Item nine, the Commission may wish to
24 explore the area of a quota incentive system for
25 consumers which would result in a preferred rate which
could be applied annually and then adjusted on a 13th



6.9 1 billing basis.

2 Item ten, currently municipal hydro rates
3 encourage use to achieve a lower per kilowatthour.
4 This procedure should be reversed to discourage
5 indiscriminate power usage and possibly tied in to
6 the previous point made.

7 Item eleven, consider the formation of
8 a committee to establish priorities for a public
9 education program on energy matters to increase (and
10 I use the word) awareness of all matters relating to
11 energy.

12 Item twelve, encourage the development
13 of a more efficient air exchange heat pump system
14 which can function in our climate without the benefit
15 of additional resistance heaters to supplement
16 deficiency in cold weather.

17 Thank you.

18 THE CHAIRMAN: Thank you very much,
19 Mr. Marshall, for a very comprehensive range of
20 conservation measures which we will review with very
21 considerable interest because, as I mentioned last
22 night, this is a concern of the Commission. It is
23 mentioned in our terms of reference specifically and
24 it is encouraging that people like yourself should
25 come forward with so many ideas as to how we might
go about it.



6.10 1 Thank you very much.

2 DR. STEVENSON: Some of your obser-
3 vations have been, shall we say, part of the debate
4 on utility pricing in this province now for some time,
5 perhaps particularly since Task Force Hydro recommended
6 that Ontario Hydro consider peak responsibility pricing
7 and seasonal differentiation in their tariffs.

8 They were making the point I believe
9 after observing that the seasonal variation was
10 increasing in Ontario that winter peaks were rising
11 faster than summer so the situation was becoming a
12 little worse year by year. It suggested a European
13 type winter peak charge. So that point is, you might
14 say, in the discussion stage.

15 There are others though that you make
16 that are more interesting and that is I think - I
17 don't mean more interesting in a pejorative way, that
18 are unique - you suggest a selection of the large
19 resistance appliances that are deferrable and putting
20 them on a timing switch of some sort so that they could
21 not be used during the day time or if they were pre-
22 sumably would be specially metered at a higher rate.

23 MR. MARSHALL: Yes.

24 DR. STEVENSON: This has been used
25 sometimes in conjunction with the electric power case
where you have a receptacle in your garage that is only



6.11 1 activated at night so you can't recharge the battery
2 except at night. Yours is an extension of that and I
3 find that quite an interesting notion.

4 I think I will have to come back to you
5 perhaps on the phone and talk to you a bit about your
6 quota incentive system which I don't fully understand;
7 and some of your concern about declining block rates
8 are familiar too.

9 I believe you are on very firm
10 theoretical ground in saying that without this peak
11 responsibility pricing you cannot have really cost
12 justified rates. I think this is fairly widely
13 recognized.

14 It is an interesting brief and I hope
15 you will allow us to get back to you with further
16 questions and clarification.

17 MR. MARSHALL: Fine, sir, thank you.

18 THE CHAIRMAN: Mr. Marshall, my
19 comment relates to electric blankets which I am rather
20 partial to, as a matter of fact. The point is, though,
21 if one keeps one's home during the night at about 60
22 degrees or less then maybe that is not a bad trade-
23 off, to save on one side and use on the other.

24 Thank you very much indeed.

25 MR. MARSHALL: I never worked that out
in dollars and cents.



6.12

1

THE CHAIRMAN: Ladies and gentlemen,

2

I think in view of the fact that we are meeting again

3

at 8 o'clock, perhaps we should draw this session to

4

a close. The Commission is most grateful to you for

5

your attendance; and for those that presented so many

6

interesting submissions, a very special thanks.

7

We will meet again, at least some of us

8

will, at 8 o'clock this evening.

9

Thank you.

10

---THEREUPON THE MEETING ADJOURNED.

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Government
Publication

THE ROYAL COMMISSION ON ELECTRIC POWER PLANNING

*Preliminary Meetings of the Royal
Commission on Electric Power Planning*

DATE: Dec. 3, 1975 **TIME:** 8pm

LOCATION: Welland

VOLUME NO: 12

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ROYAL COMMISSION

ON

ELECTRIC POWER PLANNING

Meeting held in Court Room #1,
Court House, 102 East Main Street,
Welland, Ontario, on the 3rd day
of December, 1975, at 8:00 p.m.

MEMBERS OF THE COMMISSION

DR. WILLIAM M. STEVENSON	---	CHAIRMAN
MME. PLOURDE-GAGNON	---	MEMBER
ROBERT E.E. COSTELLO, ESQ.	---	MEMBER

(Excerpt only from proceedings commencing at
approximately 8:25 p.m.)

VOLUME 12



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1 ---Excerpt only from proceedings commencing at
2 approximately 8:25 p.m.

3 (Reference: Tape Log 029)

4 THE CHAIRMAN: The first submission
5 tonight will be from the Chamber of Commerce of St.
6 Catharines and District.

7 MR. R. RAWSTHORNE: Mr. Chairman, and
8 members of Ontario's Royal Commission on Electric
9 Power Planning, I am pleased to appear before you this
10 evening on this first hearing in the Niagara area.

11 A meeting in this area is most
12 appropriate, as Mayor Pietz has pointed out, in that
13 the development of electric power stations on the
14 Niagara River signalled the very beginning of Ontario
15 Hydro. I understand that this first series of public
16 hearings are of an informal nature designed to invite
17 public participation by concerned citizens of the many
18 aspects of electric power planning in this province.
19 Therefore, my remarks will be brief and touch only on
20 the main concerns of our members.

21 Firstly, dependability of service, it
22 is paramount that the power system of generation and
23 distribution throughout the province be maintained in a
24 dependable manner. In this regard Ontario Hydro has
25 been most dependable, and this type of service is



1.2

1 envisaged in the future. However, more sophisticated
2 planning is required to ensure that needless excess
3 capacity does not become a burden on the economy of
4 this province.

5 Secondly, the rate structure, we
6 recognize that Hydro rates will increase with
7 inflation, but recent and projected rate increases are
8 far beyond projected inflation and are therefore
9 placing power intensive industry in this region on a
10 non-competitive basis and in a non-competitive position.
11 A comparison of industrial rates in neighbouring
12 provinces will substantiate this claim. This factor
13 is probably of the greatest concern to our members
14 because we have seen in the past few years the
15 relocation of plants, with consequent loss of jobs in
16 this area and this region. These points will be detailed
17 in a later submission. Examination of means aimed at
18 reducing the current rapid escalation of rates include:

19 (a) The establishment of effective
20 conservation practices by industry through co-operation
21 with your Commission and Ontario Hydro.

22 (b) To improve the load factor of the
23 system.

24 (c) A re-examination of Hydro's
25 policy of bulk power rate equalization across the



1.3 1 province to determine how helpful this has been to the
2 provincial economy, as it has certainly been detrimental
3 to the economy of the Niagara region.

4 (d) An examination of Hydro's
5 commitment to nuclear generation.

6 (e) An examination of the
7 availability of cheaper hydro electric power
8 purchases from neighbouring provinces.

9 (f) An examination of the proliferation
10 of rates to industrial, commercial, and residential
11 users which arise from the present method of power
12 distribution through the municipal public utilities.

13 On environmental concerns, the
14 cumbersome processes of public hearings and
15 environmental impact studies concerning the location
16 of generating stations and the routes of transmission
17 lines place undue burdens on Hydro's planning processes.
18 This area of Niagara is crisscrossed by a myriad of
19 power lines, and used to them as we are, we find
20 nothing objectionable to a well designed power line;
21 or to the multiple use concept of land in transmission
22 corridors which can be and are used for farming, green
23 belt, recreational, and even parking uses.

24 Although this may not be a popular
25 position today, our Chamber feels that some of the



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1 environmentalists' concerns are unreasonable and
2 therefore detrimental to the planning process. We
3 feel that the real areas of environmental concern,
4 and which must be carefully considered in the
5 planning process, include the safe and permanent
6 disposal of nuclear wastes; cooling water effluent and
7 its effect on the aquatic balance of receiving streams;
8 stack emissions of sulphur compounds and particular
9 matter.

10 Our Chamber respectfully brings these
11 concerns to the attention of your Commission in this
12 preliminary manner with the understanding that we
13 propose to develop and present a formal submission at
14 the appropriate time.

15 Thank you.

16 THE CHAIRMAN: Thank you very much,
17 Mr. Rawsthorne. Perhaps you would just stay there
18 for a moment while we consider whether we might have
19 some questions for you.

20 MR. RAWSTHORNE: Fine.

21 THE CHAIRMAN: You have raised a
22 number of areas here that in most cases I believe
23 fall squarely within our terms of reference. Most
24 things do; they are very broad terms of reference.

25 Certainly those areas that deal with



1.5 1 reliability and reserve margins of electrical power
2 of interest to the Commission; conservation;
3 commitment to nuclear generation and environmental
4 concerns; transmission corridors.

5 ————— I am going to ask my colleagues and
6 counsel to think a bit about the question of rates.
7 It is not the first time the question has been raised.
8 Our terms of reference are not clearly drawn to
9 encompass a view of rate issues. We have taken the
10 view, though, that when you talk of economic investment
11 policies, efficient utilization of energy, it is
12 perfectly in order to think about the role of rate
13 design in achieving some of these objectives.

14 MR. RAWSTHORNE: It is very vital,
15 as we are well aware in this area.

16 MME. PLOURDE-GAGNON: You talk about
17 the availability of cheaper hydro from the neighbouring
18 provinces - which provinces?

19 MR. RAWSTHORNE: Our neighbouring
20 provinces are Quebec and Manitoba.

21 MR. SCOTT: I suppose the question
22 with Manitoba really is how effectively we in this part
23 of Ontario utilize power from Manitoba. I don't
24 think there is any question in Northwestern Ontario.

25 MR. COSTELLO: It means that the



1.6

1 power would have to flow in through Northwestern
2 Ontario.

3 MR. RAWSTHORNE: As it is doing at
4 the present time.

5 MR. COSTELLO: That is correct.

6 MME. PLOURDE-GAGNON: How would you
7 get power from Quebec?

8 MR. RAWSTHORNE: They are selling at
9 the present time to New York State and they are going
10 ahead with the James Bay project and are planning
11 to sell the majority of that. Are we not at a
12 point - we have just received the statistics book for
13 1974 and if you look at the interest ^{rates} / which Hydro
14 are paying there, are we not reaching a point where
15 it is going to be cheaper to let Quebec pay those
16 interest rates and we buy the power from them and save
17 ourselves the dollar. I think that is the name of the
18 game that we should be examining.

19 THE CHAIRMAN: There is no doubt,
20 Mr. Rawsthorne, that the government of Ontario agrees
21 with your position and it is point 5 on the Speech
22 from the Throne's order paper a month ago. So it may
23 very well be that the province is not going to wait
24 for this Commission to report on the question of
25 purchases from Quebec.



1.7

1 MR. RAWSTHORNE: I think economically
2 we are at a point where we really have to look at
3 that seriously because there could be advantages.

4 MR. COSTELLO: I think the present
5 contracts with Quebec and Manitoba run out in a couple
6 of years.

7 I also understand - I have been told,
8 I don't know if this is true or not, but we will find
9 out, that this power that is to be sold to New York
10 is only 20 per cent firm. The rest is recallable.

11 However, obviously we should look in
12 Canada for power, I am sure we will be examining both
13 of those areas.

14 You mention conservation within
15 industry, Mr. Rawsthorne. You don't mention it in
16 other areas such as commercial areas and street lights
17 and so on and so forth. I am sure you have got that
18 in mind.

19 MR. RAWSTHORNE: Absolutely, and we
20 expect we will be bringing that out in our final brief.

21 MR. COSTELLO: Industry is a big
22 user, of course.

23 MR. RAWSTHORNE: Conservation I feel
24 deserves a great deal more attention than it has
25 received to date. We have been working with the



1.8 1 Energy Board and with the Federal Department, and
2 there is still a great deal that can be done in this
3 area. The two areas that you mentioned, particularly
4 the residential which is not touched yet, and commercial,
5 where really very little has been done so far in that
6 area.

7 MR. COSTELLO: Possibly it is because
8 the public really are not as well informed as they
9 should be on what we are looking at in the future on
10 electric power rates. If they were more fully
11 informed, and they should be, they would be more
12 concerned.

13 MR. RAWSTHORNE: I think that
14 statement is possibly very true.

15 THE CHAIRMAN: I would make one
16 observation, Mr. Rawsthorne, on your point that we
17 should re-examine the hydro policy of equalizing bulk
18 power rates across Ontario. You are probably aware
19 that Ontario Hydro is now working on a complete re-
20 examination of its power costing and rate making
21 philosophy.

22 Minister Timbrell, the Minister of
23 Energy announced in the legislature just last week
24 and I think I am right on this, Mr. Scott, that it was
25 his intention to refer this question to the Ontario



1.9 1 Energy Board for review next year.

2 At that time, as I understand it,
3 the Energy Board will consider virtually from ground
4 up, the costing philosophy of Ontario Hydro and it
5 might be a time to consider getting your position
6 across then.

7 MR. RAWSTHORNE: Thank you. We
8 certainly shall, and we are looking forward also,
9 hopefully, to putting forward our position to your
10 good Commission.

11 THE CHAIRMAN: I am delighted to see
12 you will be doing that.

13 MR. COSTELLO: This is the first area
14 we have hit for people used to transmission lines.

15 MR. RAWSTHORNE: They are all through
16 the area; you might as well get used to them.

17 MR. COSTELLO: We were in Wingham a
18 week ago and we had 325 people there. Transmission
19 lines and generating stations were a no-no; they were
20 pretty well organized, the farming group are, and I
21 guess rightly so. I have become very conscious of
22 the lack of good farmland in Ontario the last couple of
23 months. Some people are used to seeing these things
24 in the sky.

25 MR. RAWSTHORNE: We have started using



1.10 1 land for parking areas in the city of St. Catharines.
2 It is working out extremely well in conjunction with
3 private development and I think we have to examine more
4 carefully these areas with land reaching the price it
5 is and putting the cost of our buildings up that if
6 there was spare land there that you can park a car on,
7 no reason why you can't. Arrangements can be made to
8 use that for parking purposes, as we are doing now.

9 MR. SCOTT: Mr. Rawsthorne, you made
10 a reference to the planning process that Hydro has to
11 go through and indicated that in the Chamber's opinion
12 it was an undue burden on Hydro. I am wondering, is
13 the basis for your view here that people in this area
14 have been used to Hydro for a long time and perhaps
15 they are a little more thick-skinned than other parts
16 of the province on that.

17 MR. RAWSTHORNE: I think that may well
18 be, that we are a little bit more aware of Hydro and
19 it is part of our life, more so than other areas,
20 perhaps, but what I am speaking about there is the
21 system which you have to go through in that planning
22 process with the hearings and all this sort of thing
23 that are costly and take an awful lot of time.

24 MR. SCOTT: I did not want to get into
25 too much detail on that but I was just wondering if



1.11 1 you could help us with this. The system, as you say,
2 it is costly, it takes time, it does allow for public
3 participation. Is there too much public participation,
4 do you think, and what do we do about public
5 participation or do we forget about it or --

6 MR. RAWSTHORNE: No, I don't think
7 you can forget public participation ever in a
8 democratic society and that would be the last thing
9 that I would want to see cut out by any means but I
10 feel perhaps there are some other approaches to this
11 type of thinking to get that participation that would
12 work around and not prevent that planning process
13 going on at the same time.

14 MR. COSTELLO: Maybe better education?

15 MR. RAWSTHORNE: I think this is one
16 of the areas, yes.

17 MR. COSTELLO: This is one of the
18 things that has come up particularly in the school areas.
19 The children are given a lot of input on pollution but
20 not really given much, as we understand, schooling in
21 energy and saving of energy and the problems we face
22 over the long haul in the lack of fossil fuels.

23 MR. RAWSTHORNE: We realize this and we
24 recognize we are just starting the formation -- we
25 have had in operation with our Board of Education for



1.12

1 two years now work study sessions where the students
2 in their senior years of highschool over the ages 16
3 go and work in business and industry as part of their
4 educational process in the area in which they are in
5 and it has worked out extremely well.

6 These young people are beginning to
7 acquire an outlook also and a point of view that they
8 have not had before in these areas; and we are now in
9 the process of extending that with our Board of
10 Education; forming an industrial education council
11 that will extend that system to the teachers themselves
12 and put them in the work situation so that they can
13 upgrade and evaluate and really form a much better
14 judgment than they have at the present time where they
15 are only having the inputs from the one side of the
16 picture.

17 MR. SCOTT: I gather then your thinking
18 is going to, you said, forms of public education that
19 get away from the confrontation bit.

20 MR. RAWSTHORNE: Yes.

21 MR. SCOTT: I take it really what you
22 have been saying in this question of planning, you
23 have been concerned about cost and we all know that
24 public participation is essential in a democracy and
25 it is just a question of balance?



1.13

1 MR. RAWSTHORNE: Right, and how you
2 approach it; and I feel there are other ways and
3 better ways and better ways can be done and at the
4 present time the cost - it is not only the cost of
5 the hearings themselves and the time of everyone
6 involved, but the cost of the delay.

7 THE CHAIRMAN: It is interesting to
8 hear your views on that, Mr. Rawsthorne. We have had
9 a number of opinions which are just about diametrically
10 opposed, as you would expect.

11 MR. RAWSTHORNE: I am sure.

12 THE CHAIRMAN: Thank you very much,
13 sir, for a most interesting brief.

14 MR. RAWSTHORNE: Thank you.

15 THE CHAIRMAN: The next person.
16 on my list is Mr. Wilf Locket. of Niagara Falls.
17 I recognize Mr. Locket as one of Canada's consulting
18 engineers of note. Mr. Locket has been building
19 hydro stations in remote parts of this world for many
20 years. We look forward to your views.

21 MR. LOCKET: Thank you very much for
22 those comments. Mr. Chairman, Members of the Commission,
23 ladies and gentlemen:

24 I should say first of all that I am
25 here as a private citizen and the comments that I have



1.14

1 addressed to the Commission in a brief letter have
2 primarily been interests of private citizens at this
3 stage. There are many other aspects of your work
4 which I find very interesting but for this evening
5 I would just like to confine my comments to those
6 aspects of your work which I think touch upon private
7 individuals.

8 I was very pleased to note from
9 perusal of this information package that you have
10 made available that the terms of reference of the
11 Commission are comprehensive but at the same time,
12 they leave you much discretion in choosing the manner
13 in which your investigation should be carried out.

14 The purpose of my presentation is to
15 address what I believe to be a very important area
16 of your work, namely the enlightenment of the general
17 public regarding energy matters in general and
18 electric power in particular.

19 Quite apart from the natural unawareness
20 of the public with regard to any aspects of the
21 electrical power industry, it must be admitted that
22 until relatively recently the utilities themselves
23 including Ontario Hydro have been guilty in their
24 advertising campaigns of presenting distorted and often
25 misleading information.



1.15 1 I feel therefore that the results
2 of your initial survey which is referred to in one of
3 your papers here must be scrutinized with great care
4 because while they might represent current public
5 thinking they will undoubtedly reflect current public
6 ignorance.

7 This leads me to propose that the
8 Commission should undertake a second survey which might
9 take the form of an introductory statement explaining
10 in simple terms the essential factors involved and
11 followed by a questionnaire designed to elicit an
12 informed reaction to the issues raised for example in
13 your Contact Number 1, that is the paper you have in
14 your package.

15 Among the subjects which should be
16 covered in the introductory statement are:

17 (1) In the present context the
18 sources of energy are, first, solar energy which
19 includes fossil fuels, and these are in the course of
20 depletion on a global basis; and of course as far as
21 Ontario is concerned there really are no fossil fuels;
22 and hydro power. Most of the good sites in Ontario
23 are already developed but we can have reasonable
24 confidence of a continuous supply from these sites.

25 .After solar power we have nuclear



1.16 1 energy. Now, the technology which has been developed
2 so far in Canada for the production of energy by
3 fission is reasonably advanced but depends upon
4 uranium and this is not economical. Then the
5 alternative way of obtaining energy from nucleus
6 is by fusion and the only results which have so far
7 been obtained are disastrous. They have yet to find
8 a way of developing a controlled reaction by fusion
9 and I think that it is pretty certain that within the
10 time space we are considering it would have to be
11 discounted. Maybe technical people will discover a
12 way of dealing with this, but I think we have not to
13 include it in our planning.

14 That was my point 1, which deals with
15 sources of energy and it leads on to my point 2 which is
16 that notwithstanding past attempts by Ontario Hydro to
17 persuade customers to "live better electrically" and
18 my point here is that until quite recently Ontario
19 Hydro was putting itself in competition with other
20 energy producers. Electricity itself is not a source
21 of energy. It is just a means of transporting energy
22 from one place to another.

23 Then my point 3 is that somehow or
24 other the difference between "peak" and "energy" and
25 I have those in quotes here, should be explained since



1.17 1 they affect the cost of power to the consumer in such
2 different ways.

3 I don't know whether members of the
4 audience here will recollect this advertisement
5 which appeared in the Globe and Mail on November the
6 17th - very admirable in its intent and probably as
7 people read it and take note it will be effective, but
8 this advertisement itself includes some confusing
9 comments and remarks. They are saying, cut down on
10 your demand for electricity from 5 to 7 p.m. That is
11 because at that time they have a maximum demand during
12 the day and have the greatest difficulty - no, that is
13 not right either, they do need it - but that is when
14 their reserves are reduced to a minimum. They show
15 a number of ways here in which the demand can be cut
16 down. They show a child turning off the light; two
17 other children who might well turn off the television;
18 a lady in the kitchen cooking a meal; somebody loading
19 a dishwasher; somebody doing some washing; somebody
20 having a bath.

21 Now, with the possible exception of
22 the child turning off the light and the two children
23 turning off the television, all these other activities
24 if people refrained from them, it would indeed reduce
25 the peak demand; but people are going to cook at some



1.18 1 other time and carry out these other essential domestic
2 activities at some other time and they will be using
3 energy so that basically, what Ontario Hydro is
4 asking the public to do here is not going to save very
5 much energy, but right across the middle of it, they
6 say "conserve energy" so in my opinion, the advertise-
7 ment is a good one but it is confusing in its
8 implications.

9 There are many other aspects which I
10 believe should be explained to the public and I believe
11 it should not be impossible to achieve this in
12 relatively simple and straightforward terms.

13 The questionnaire which I proposed
14 would also require to be carefully thought out so as
15 to obtain an indication of the public's attitude
16 towards conservation and perhaps more immediately
17 towards the problems they will face when there is no
18 more natural gas for home heating. I don't know how
19 many people heat their homes with natural gas but
20 we are running out, and if you say, when the crunch
21 comes I will pop over to Hydro, fine. Certainly
22 Ontario Hydro will want to know that.

23 Those, Mr. Chairman, are the sum total
24 of my remarks at present.

25 Thank you.



1.19 1 THE CHAIRMAN: Thank you very much,
2 Mr. Locket, and again I ask your indulgence to see if
3 we have some questions for you.

4 I am very interested in your remarks
5 about educating the public. I am sure Solange will
6 have some questions on that score. I think we have
7 been struck perhaps more than by any other area of
8 public concern by people who say that a Commission
9 of this kind cannot really get off the ground until
10 it has proceeded with an educational stage; the public
11 must have alternatives and know the consequences of
12 the selection of alternatives and only then can you
13 ask them to choose the various choices, the various
14 alternatives.

15 You have made reference to our little
16 newsletter printed on government approved newsprint
17 inexpensively. We hope to use a format something
18 like this to bring to the public's attention what the
19 issues are, the issues that you have raised, and I
20 am pleased that you think we can make the public clear
21 as to the difference between peak and energy. It is
22 a subject that is simply not part of the average
23 person's understanding. Ontario Hydro's efforts here
24 suggest they don't think they can educate people to an
25 understanding of the difference. Our time frame is



1.20 1 more leisurely, perhaps, and I hope that we can.
2 I am with you; it can be done. People must understand
3 why the Minister of Energy last week said not that I
4 want you not to have a Christmas lights this season,
5 I just want you to turn them on after-dinner. He did
6 not really say why, but the answer is exactly as Mr.
7 Locket has explained. Take that load which Hydro
8 would otherwise have to meet in its peak time of the
9 day and push it on to the evening when Hydro can
10 accommodate it much more easily.

11 MME. PLOURDE-GAGNON: Mr. Locket, in
12 many places they make the suggestion about the
13 educational program from kindergarten to highschool.
14 Do you have other suggestions about the educational
15 matter in the conservation of energy?

16 MR. LOCKET: I gave some thought when
17 I was preparing this as to whether I might attach to
18 it some headings, as it were, as to what might be
19 included in such an explanatory note. I certainly have
20 in mind that this should be addressed to the common
21 man. I use that with respect. Many of the people
22 here this evening I think have a more specific interest
23 in the electric power industry and are probably well
24 aware of the issues that are involved but I am concerned
25 that the public as a whole participates to the maximum



1.21 1 extent possible in this decision-making process and I
2 think that by these examples, I think the essential
3 features can be explained. I don't say it will be
4 easy but I think that with some effort they can be
5 explained.

6 Certainly it would be possible to do
7 this in the course of a program in the schools but
8 that is a little bit too long term and I had in mind
9 that perhaps the form of this second survey might be
10 a booklet, pleasantly illustrated, in which over the
11 course of four or five pages with examples and
12 illustrations the real essentials of the problem
13 are presented and then at the back of the book, some
14 questions very carefully prepared because I have a
15 feeling that if the questions are sufficiently
16 carefully prepared you can find out just how much of
17 your explanation has got in, as it were.

18 Does that answer your question, or
19 have I evaded it?

20 MME. PLOURDE-GAGNON: Thank you.

21 THE CHAIRMAN: Mr. Locket, we have
22 had one additional survey conducted. The results are
23 in. We have not had a chance to see them yet.

24 We were rather careful on the selection
25 of a survey firm in that we knew that a badly done



1.22 1 survey is worse than useless because at first you
2 would not know whether you could rely on what it found.
3 So your point that the survey should be
4 preceded by the educational is a new point and we will
5 certainly take it back to our director of research.
6 It is very worth considering.

7 MME. PLOURDE-GAGNON: And what do you
8 think of the style of a comic book?

9 MR. LOCKET: No, don't play down to
10 the public.

11 MME. PLOURDE-GAGNON: To the children?

12 MR. LOCKET: No, I don't think so.
13 I think you are speaking to adults.

14 MR. COSTELLO: There is quite a bit
15 of feedback we have been getting about not using all
16 of this jargon that we don't understand. You know what
17 I mean.

18 MR. LOCKET: Yes.

19 MR. COSTELLO: We are conscious of
20 that. I don't know why we can't explain the difference
21 between demand and energy in this newsprint publication
22 that is coming out every two or three weeks, and now
23 the postmen have gone back to work this whole Commission
24 is really an educational forum. Our problem is a lot
25 of education should have been done before we got



1.23

1 appointed, I guess.

2 MR. LOCKET: There are one or two
3 misunderstandings on the part of the public arising
4 from public statements by various people in the energy
5 field which I think require clearing up. I am usually
6 always very depressed to see people talking about
7 the rate of growth of oil reserves. How many times
8 have you heard that, particularly by spokesmen of the
9 oil industry? Now, I am not going to swear that we
10 are using fossil fuels faster than nature is creating
11 them but I am willing to bet that we are.

12 MR. COSTELLO: Faster than the rate
13 that we find them.

14 MR. LOCKET: That I think is the
15 point I am making. The rate at which you find them is
16 no indication of the rate at which they are being
17 created and if we use an amount faster than created,
18 then we are running out.

19 DR. STEVENSON: One question, Mr.
20 Locket, in Hamilton we had a submission from Dr.
21 Robert Jervis who is the Assistant Dean at the School
22 of Applied Sciences at the University of Toronto.
23 He had a good reason for presenting it in Hamilton.
24 He is also the head of a energy study group consisting
25 of about 24 University of Toronto professors who have



1.24

1 completed a 800 page work on energy, heavily
2 emphasizing energy technologies, fossil fuel supplies,
3 solar, magneto hydro dynamics, every possible way of
4 energy conversion that could be raised seriously in
5 this Commission.

6 It would appear that Dr. Jervis
7 and his associates will be prepared to summarize the
8 results of their work aimed at an audience of, let's say,
9 intelligent highschool graduates. If they are able
10 to do that, with or without the assistance of our own
11 staff, this may be able to be disseminated widely in
12 this forum; so if there is a terribly promising
13 development we will be able to use the results of
14 a very excellent academic and therefore, one hopes,
15 dispassionate analysis of this question as the basis
16 of our public education program.

17 MR. SCOTT: Mr. Locket, just looking
18 down the path a bit and hopefully we are a Royal
19 Commission that may be quite unique in that its report
20 will be accepted in whole or in part and I am trying to
21 adjust myself to the problem of what might happen when
22 we get around to implementing the report.

23 I was wondering about this problem of
24 getting the uninformed judgments. Now, you made
25 reference to them and indicated that we perhaps have a



1.25 1 second survey because of the fact that the first go-
2 around we are getting the uninformed judgments and I
3 wondered if there is not some value in getting the
4 uninformed judgments so that you can try and determine
5 the public attitude that is going to have to change,
6 if any, to try and make some headway. Have you thought
7 about that?

8 MR. LOCKET: I think you are right.
9 I think there is absolutely no harm done in the
10 coming out of an initial survey. I was a little bit
11 concerned, I don't think with any special grounds,
12 and I had reasonable confidence you would look into
13 the thing, but if you are only going to base
14 recommendations on those things you have to recognize
15 that a fair proportion of the opinions that you are
16 getting are not really informed opinions.

17 MR. SCOTT: I want to ask a couple of
18 questions of a clarification nature on the questionnaire.
19 Assuming you have got the public attitudes in the first
20 survey, some of them are informed and some of them may
21 not be, by then I think you propose that we go on to
22 make a second survey where we will get some informed
23 opinions.

24 Now, would we get the informed opinions
25 from the same people that we got the uninformed ones



1.26

1 after a period of education or are you suggesting that
2 we perhaps ask our questions to a different group of
3 people the second time around?

4 MR. LOCKET: I can't answer that
5 question straight off because I don't know what
6 sampling methods you used in the first survey. If you
7 used the very same people then obviously you would be
8 getting a test of the efficiency of your education,
9 but what was the representative sample? That I don't
10 know.

11 MR. SCOTT: I think I see what you are
12 thinking. We would do this, according to your
13 proposal, to try and determine how effective the
14 Commission is in educating the public.

15 MR. LOCKET: No, you wouldn't find
16 that out, that is not the prime object. The prime
17 object is to get informed opinions from the public.
18 I don't know, may I ask what was the size of your
19 sampling in your first survey?

20 LYSE MORISSET-BLAIS: 1,000 households
21 throughout the province - scattered throughout the
22 province.

23 MR. LOCKET: I would say there should
24 be at least that and there would be absolutely no
25 harm at all in sending the free questionnaire, you might



1.27

1 say the study of the text to the same people but I
2 think you should send it further to other people as
3 well and I have not yet thought exactly how you might
4 bring in people with commercial interest as well.
5 You should have them. I imagine there are many
6 commercial consumers that are equally in need of
7 education.

8 MR. COSTELLO: Not to the same degree,
9 I don't think. You tend to hear from the groups but
10 we are really trying to hear from the great majority
11 of anonymous people.

12 MME. PLOURDE-GAGNON: The consumers.

13 MR. SCOTT: I have a problem with the
14 questionnaire. I am trying to keep the Commission out
15 of any legal troubles if I can later on down the pike.
16 There are going to be plenty, I imagine.

17 We have to operate under the Public
18 Inquiries Act. I see Mr. Voss and some people from
19 AMPCO sitting here in the audience now.

20 Give me a horseback opinion on this.
21 Maybe you have thought of it; maybe it won't be a
22 horseback opinion; but we send out the questionnaire;
23 we have got the answers. Can we use them with
24 attribution, do you think, or do you think we should
25 compile them all on some kind of a statistical basis



1.28

1 so nobody will know who said what.

2 This worries me a bit because the
3 ultimate conclusion in something that you have
4 boiled down which is not attributed to anybody can be
5 extremely prejudicial to one group or another, one
6 group, you know, with a specific case to make and they
7 may say to us, well, you boiled it^{all}/down and we don't
8 know who said what and we can't cross-examine them on
9 it and we are in trouble and you are denying us
10 natural justice and so on and so forth.

11 I am not saying this is going to happen
12 but it might happen and it is perplexing.

13 MR. LOCKET: My comment on it will
14 have to be horseback, as you suggested. Of course it
15 would depend to a great degree on the questions you
16 asked and what was the objective. If you are thinking
17 about the narrow objective as to how Ontario Hydro
18 are going to go about their load problems in terms of
19 demand and load factor and so forth and obviously you
20 can put them in a (inaudible) but I would think you
21 would have to be very careful about the questions that
22 you asked in regard to environmental matters.

23 MR. SCOTT: Why do you draw a
24 distinction there?

25 MR. LOCKET: Because they tend to be



1.29 1 qualitative.

2 MME. PLOURDE-GAGNON: (Inaudible).

3 MR. LOCKET: I am thinking in terms
4 of survival, one or the other. Perhaps that is
5 emotional.

6 MR. COSTELLO: A lot of our work is
7 going to end up in a qualitative area, as you know.
8 We will have these information hearings in March and
9 there will be a set of formal hearings later on too
10 where everybody gets their kick at the cat but I
11 think we will be educated by then. This whole
12 procedure will go on for two years, maybe three.

13 MR. LOCKET: I would like to make
14 a comment, a little bit of a confession about my
15 ulterior motives here. I think at this point in human
16 development and where we are in North America, I think
17 that it is vital that people as a whole are made to
18 realize the implications of continuing to grow at the
19 rate they are growing. One has to be very careful
20 about exploding this thing into a Club of Rome
21 type of inquiry. That is not the object of the
22 exercise, but, on the other hand, energy demand is
23 so fundamental and so inter-woven are the problems,
24 I think there are a lot of home truths the public has
25 got to be made aware of.



1.30 1

2 To be specific, I think they should be
3 told, and this harks back to the previous gentleman
4 who made a presentation here, I think the public needs
5 to be told what makes up the cost of power to them
6 and under the basic heading of that element of cost
7 which is related to the demand and the capacity that
8 is required to meet the demand, it isn't just a
9 question of paying for the capacity which has already
10 been installed including the reserve for which we
11 depend for reliability but also any capacity which has
12 got to be built-in every few years; and if the rate
13 of demand is lower then there is an immediate reduction
14 in cost in principle at any rate.

14 THE CHAIRMAN: We have heard some
15 very interesting submissions on the subject of peak
16 responsibility facing, let your price tell the
17 consumers the degree to which they will be responsible
18 or not responsible for the addition of capacity - a
19 very contentious question among utility rates people
20 but not difficult to accept if you think that the
21 real important question is getting across the message
22 of cost responsibility; and I think most people would
23 agree.

24 Mr. Locket, many thanks for the
25 thoughtful submission. There will be other questions



1.31 1 tonight that will deal with these issues.

2 At this point I will call for other
3 submissions that people may have to make.

4 Mr. F. Scott Robinson who is known
5 to many of you, from Atlas Steels commented in
6 Hamilton last night to the effect that there may be
7 some submissions from local industry. Any submissions
8 from industry?

9 MR. COSTELLO: There was reference to
10 a submission from AMPCO which, from talking to Ken
11 Voss, I got the impression was mailed on November the
12 12th, but we have not received it.

13 MR. KEN VOSS: Yes, Dr. Stevenson,
14 AMPCO submitted a preliminary brief on November the 12th.
15 I am sorry if you have not received it because I was
16 ready to answer questions on it.

17 THE CHAIRMAN: Oh, I see. It is
18 probably at the Thorold post office.

19 MR. VOSS: Or Toronto.

20 THE CHAIRMAN: It isn't going to be
21 possible to speak to the brief tonight then, Mr. Voss -
22 or that may not be your wish. It is totally up to you.

23 MR. COSTELLO: We are going to Thunder
24 Bay next week.

25 THE CHAIRMAN: Is it long? Could you



1.32 1 read it? Could it go on the record?

2 Perhaps, Mr. Voss, you can identify
3 yourself and the Association, for those who may not
4 know.
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P/ko

1 W. KEN VOSS: My name is Ken Voss and
2 I am Chairman of the Association of Major Power
3 Consumers in Ontario. It is a group of about 40 major
4 industries who find electricity a vital part of their
5 manufacturing process.

6 We have been in existence - as a group
7 actually we came into being in the Niagara area about
8 12 years ago as the Niagara Basic Power Users
9 Committee and have since expanded to take in industry
10 across the province.

11 We are vitally concerned with Hydro.
12 First of all, I must make it very clear that primarily
13 we all must be concerned that Ontario Hydro be a
14 viable, thriving part of our economy and in no way
15 must anyone or any group or any thing work against
16 Hydro because it is interwoven so closely with the
17 economy of our province.

18 I also happen to be a Vice President
19 of the Ontario Paper Company and we are one of the
20 large users of power in this area. We have a demand
21 load of around 55,000 kilowatts.

22 Our brief, Dr. Stevenson and Commission
23 members, reads as follows:

24 Introduction:

25 The Association of Major Power
Consumers in Ontario or (AMPCO) is comprised of 40



2.2

1 major industrial firms which depend on electrical
2 energy as a major component of their manufacturing
3 processes. The Association and its precursors have
4 been active in electric power matters for many years
5 and AMPCO has been a major intervenor before the
6 Ontario Energy Board in respect of Ontario Hydro's
7 bulk power rates. AMPCO is currently collaborating
8 with Ontario Hydro in studying a number of matters
9 dealing with power costing and conditions of supply.
10 AMPCO has also extended an invitation to the Ontario
11 Municipal Electric Association to co-operate with it
12 in various studies which pertain to electricity supply
13 from the customer's viewpoint.

14 AMPCO and The Royal Commission on
15 Electric Power Planning:

16 AMPCO and its members offer
17 their full co-operation in respect of the provision
18 of data which may be required by the Commission in
19 the course of its investigations. However it should
20 be noted that AMPCO's efforts to establish a compre-
21 hensive bank of basic data covering industry generally,
22 have been inhibited by its failure to secure the co-
23 operation of the municipal electric utilities.

24 AMPCO has received flat rejections from most municipal
25 electrics whom it approached with a request for a list
of their industrial customers. For this reason AMPCO's



2.3 1 resources are severely limited in respect to basic
2 industrial data concerning electrical supply and
3 consumption.

4 Possible Research Projects:

5 AMPCO has already made a
6 suggestion in respect of the type of research project
7 which could be undertaken by its member companies and
8 its consultants. It would be desirable, however, if
9 the Commission could supply a list of those research
10 projects which it considers to have some order of
11 priority. This would enable AMPCO to canvass its
12 members to assess the degree of participation which
13 they might offer.

14 In connection with specific
15 generation and transmission projects which Hydro
16 proposes to build in the future, undoubtedly some
17 AMPCO members, who may be affected, may wish to
18 present individual submissions to the Commission.
19 AMPCO has, and will encourage this type of partici-
20 pation and wishes to make it understood that it will
21 in no way impede communications between the Commission
22 and individual industries.

23 Load Management:

24 AMPCO wishes to draw the
25 attention of the Commission to its testimony presented
to the Ontario Energy Board this year in respect of



2.4 1 the need for a new look in connection with the matter
2 of scheduled and interruptible power rates. AMPCO
3 considers that a comprehensive review of this subject
4 will materially assist in establishing incentives for
5 industries to manage their electrical loads to the
6 mutual advantage of themselves and Hydro.

7 Standards of Service:

8 One matter which AMPCO believes
9 is fundamental to the work of the Commission is the
10 determination of standards of reliability and security
11 of electrical supply from the customers viewpoint.
12 Until these standards are established it is not
13 possible to fairly evaluate Hydro's future require-
14 ments for new plant, or the schedule of its
15 construction. AMPCO considers that research along
16 these lines should be commenced without delay in view
17 of its vital future implications.

18 The Future of Electric Power in Ontario:

19 The economic well-being of
20 industry in Ontario is inextricably bound with the
21 well-being of Ontario Hydro. AMPCO in no way wishes
22 to prejudice Hydro in the future; however, it does
23 consider that Hydro must face the same type of
24 reality which is faced by industry. We are all aware
25 that we must give up some of the energy benefits which



2.5 1 we so lavishly enjoyed in the past. The question is
2 how much and how. AMPCO looks to the Royal Commission
3 on Electric Power Planning to provide the answer.

4 Mr. Chairman, we touched on a great
5 many aspects, as we know that this is a very pre-
6 liminary approach and I think our whole basis was
7 also to stimulate discussion as to how the Commission
8 will finally develop the program.

9 THE CHAIRMAN: Thank you very, Mr.
10 Voss. As you know, I am very well aware personally
11 of the very important contribution that AMPCO and its
12 predecessor group, the Niagara Basic Power Users
13 Committee have made to the quality of debate in this
14 province surrounding Ontario Hydro and its planning,
15 that and with Task Force Hydro you were personally
16 involved and very much concerned with rate matters.

17 Now we are looking at broader questions
18 and I for one am sure that the industry in this
19 province will rally around and provide this Commission
20 with the vital data it is going to need on the
21 question of response of industry to various alterna-
22 tives that the Commission may wish to investigate.

23 The statement that you made not long
24 ago publicly about the willingness of industry to
25 accept a slightly less reliable power in order that
capacity may be saved and rates may be mitigated has



2.6 1 been quoted I don't know how many times since as a
2 guide really for individuals and others to think about.

3 I don't really have any questions
4 personally of you at this stage but I know we will be
5 coming back to you. Our research people, I hope, will
6 be able to provide that list of priority projects
7 soon so AMPCO may consider how it may all fit in.

8 MME. PLOURDE-GAGNON: AMPCO represents
9 the big industries - you don't have any of the average
10 consumers.

11 MR. VOSS: Our members all have loads
12 of 5,000 kilowatts or greater. For example, one of
13 the research projects which we feel would be vital
14 would be an examination of how to up this 40% recovery
15 of energy from a fossil fuel plant by the use of the
16 waste heat in industry, some type of process heat in
17 industry.

18 MR. SCOTT: Possibly district heating.

19 MR. VOSS: Very much so.

20 MR. COSTELLO: Or using your own
21 condensing capacities?

22 MR. VOSS: Yes or for some industries
23 who could not hope to generate electric power
24 economically but who could if there was a market for
25 the waste heat - well waste heat is probably not the
right word, for the heat that cannot be utilized in



2.7 1 generation.

2 THE CHAIRMAN: I could foresee a
3 market for steam which may be generated by Ontario
4 Hydro consciously for sale to adjacent industries.
5 This hasnot to my knowledge happened in this province
6 but it certainly does in other parts of the world, am
7 I not correct?

8 MR. VOSS: If I could just get in a
9 very brief plug for a project that my own company,
10 the Ontario Paper Company, is slightly interested in,
11 we have formed a consortium with Consumers' Gas and
12 Canadian Industries to study the feasibility of
13 collecting all of the garbage in the Niagara area and
14 trucking it to a central plant where we would burn it
15 to produce steam or process, after running it through
16 (inaudible) to generate power.

17 It is not generally known, but at
18 5,000 btu's per pound of industrial refuse -
19 residential refuse - there is about four times as
20 much recoverable heat in garbage as there is in tar
21 sands. It seems ridiculous that in one part of the
22 country we are digging up tar and in the other end of
23 the country we are burying garbage.

24 MR. COSTELLO: That is going to be
25 very interesting. As you know, Smooth Rock Falls is
boiler
installing a refuse-burning // to generate about half



2.8

1 their own electrical requirements from wood waste.
2 This can't be done everywhere but there are places
3 where it can be done. If we could just get onto
4 that coal train that Hydro uses I think we could
5 generate a lot of our own power in that part of the
6 province.

7 THE CHAIRMAN: Do you have a progress
8 report on the work, Mr. Voss?

9 MR. VOSS: We have finished the first
10 phase of the feasibility study and we are now about to
11 commission a detail phase which will look into the
12 detailed engineering costs.

13 MR. SCOTT: Do you have any information
14 on the project that the Ministry of the Environment
15 and Ontario Hydro are carrying out at their Lakeview
16 plant, burning waste there, with what economics I
17 don't know.

18 MR. VOSS: I am aware of it. I don't
19 know the detail about cost figures at all.

20 MR. SCOTT: Mr. Voss, could I ask you
21 a question about exports. This has come up. Mr.
22 Rawsthorne from the St. Catharines Chamber of Commerce
23 mentioned it and also Mr. Luckett mentioned it. Do
24 you think this question of exports really goes any
25 further than making sure that whatever power is
exported is surplus to Canadian requirements,



2.9 1 particularly surplus to Ontario's requirements, or do
2 you think that you should look beyond that further
3 into this export question and concern ourselves with
4 the question of cost? In other words, we may be able
5 to buy power from Quebec, say, more cheaply than we
6 can make it ourselves. Do you think that is one of
7 alternatives that this Commission should consider?

8 MR. VOSS: I would hope that it would,
9 yes, but this is a difficult area because we are look-
10 ing at an energy policy which should embrace the whole
11 country but it is definite that Quebec Hydro has an
12 application before the National Energy Board so that
13 hydro may be exported to certain parts of the U.S.
14 and of course the National Energy Board's requirement
15 is that all exports must be surplus to Canada's use,
16 but our concern is that these neighbouring provinces
17 will be exporting power, I don't care whether you call
18 it firm^{or}/secondary, but exporting power to the U.S. at
19 prices less than Ontario Hydro was forecasting for
20 Ontario consumers over the next two or three years.

21 MR. SCOTT: Then I suppose there is
22 this question of whether the export of power generated
23 from coal imported from the States at a price that
24 collects the social costs, however we might want to
25 define social costs.



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MR. VOSS: I have a little difficulty in reconciling in my mind a picture which surfaces every so often. Manitoba Hydro with Federal assistance is building a 500 kv line to the Minnesota border, direct north-south line for (inaudible) power for export to the U.S. which crosses at right angles exactly the CP line on which Ontario Hydro will be hauling Alberta coal to Ontario to produce our power. These things don't jibe in my mind. There should be a better system to work out something.

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THE CHAIRMAN: Exports of power are specifically mentioned in our terms of reference so possibly that paradox has occurred to others, Mr. Voss.

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MR. SCOTT: I assume a number of your member companies have some kind of alternative fuel burning capabilities. They don't just rely solely on electric power. In some cases that would be true, would it not?

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MR. VOSS: A great many of our members generate some electric power.

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MR. SCOTT: I was wondering if many of your members used hydrocarbons, I am thinking of oil and natural gas.

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MR. VOSS: I am sure most of them do.

MR. SCOTT: Probably they might have



2.11 1 been following the progress of the bill now before
2 the Ontario Legislature, Bill 4 to amend the Ontario
3 Energy Board Act to set up a framework to allocate
4 natural gas.

5 MR. VOSS: I have a copy of that.

6 MR. SCOTT: I just thought we should
7 put that on the record in view of Mr. Locket's
8 concerns that we were running out. I think I can
9 operate on the assumption that the Ministry thinks
10 that this is only a stop-gap measure until we get the
11 natural gas from the Mackenzie Valley. Hopefully
12 this will be the case.

13 MR. VOSS: I have knowledge of this
14 through a committee of the Canadian Pulp and Paper
15 Association and the Federal Government I believe are
16 concerned with this and are delegating allocation of
17 gas to the provinces, and this ties in.

18 THE CHAIRMAN: Mr. Voss, don't go home.
19 I think questions about industry and its relation to
20 the Commission might very well arise in the open
21 discussion period and we might refer some questions
22 back to you.

23 Thank you very much for your submission,
24 and the Commission will be in touch.

25 --- Please refer to tape log at 165 for further non-



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transcribed proceedings.

--- Excerpt from proceedings at approximately 10:10 P.M. (please refer to tape log at 205).

--- On resuming after short recess

THE CHAIRMAN: Ladies and gentlemen, we have one additional submission. We would like to hear now from Mr. John Dawson of the Niagara Public Utilities Commission.

MR. JOHN DAWSON: Thank you very much for your invitation.

In the time of Sir Adam Beck, Hydro in Ontario had a clear mandate to "meet the needs of Ontario's peak power demands" - "with power at cost." History has recorded a perfect record. The recent "Task Force Hydro" lauded Hydro for its performance, nevertheless a "crown corporation" was recommended.

Since the establishment of the "Crown Corporation", one is aware of some deterioration rather than improvement due mainly, in my opinion, to "government interference".

I believe it is most essential that the Provincial Government take the responsibility for its decisions concerning Hydro. For instance, interference by government in restricting rate increases in the recent past, is a primary cause for the high increase required for 1976, but it is Hydro which is on the



2.13 1 receiving end of the adverse publicity the proposed
2 high rates generate.

3 I repeat the Provincial Government
4 should take the responsibility for decisions con-
5 cerning Hydro or give the Hydro Crown Corporation a
6 clear mandate and leave the job to them. The
7 Provincial Government's procrastination in making a
8 decision as to the structure of "Hydro distribution"
9 in the Niagara Region is something they cannot be
10 very proud of. They promised a decision by the end of
11 1970; that decision has not been made yet. The cost
12 and frustration this has caused would be impossible
13 to measure.

14 Another area I believe that could stand
15 some investigation is the cost of government enquiries
16 being charged to Ontario Hydro and becoming part of
17 "the cost of Power". For instance, the Energy Board
18 Hearing last year cost the Ontario Hydro alone between
19 2 and 3 million dollars plus the cost of the Energy
20 Board itself. It is questionable as to whether this
21 is a legitimate "cost of Power" or should it be a
22 government expense; also the very heavy expenditure
23 of finance connected with the Task Force Hydro should
24 be looked into, to see if this expense was charged to
25 Hydro and included in the cost of Power.



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In 1974 the Provincial Government charged Ontario Hydro \$12 million plus for the use of water going through the turbines at Queenston and back into the river. This is an annual charge that goes into the cost of Power, which seems inconsistent with the Government complaining about the high cost of electricity. Surely the water in the Great Lakes system belongs to the people, as does the Ontario Hydro system, so why should the Provincial Government inflict a \$12 million charge for the use of water thereby increase the rates paid by customers.

Thank you very much for this.

THE CHAIRMAN: Thank you very much, Mr. Dawson.

MR. COSTELLO: You might like to know that this Commission is not being charged against Hydro.

MR. DAWSON: Not even coffee?

THE CHAIRMAN: It will get back to the taxpayers.

You made some points that are interesting. I wonder how many of them this Commission will see fit to consider within its terms of reference, Mr. Dawson. Some of them have historical reference to Task Force Hydro and so on. Water rentals interestingly enough were raised a couple of weeks ago by the



2.15 1 Sub-Committee of the Legislature looking at ways to
2 do something about Hydro's proposed 25% rate increase.

3 I think one of the reasons why
4 Treasurer McKeough was not very intrigued by the
5 possibility of dropping water rentals to Hydro was
6 because it would then let private industry who also
7 make use of water much in the same way no
8 longer be charged water rentals and the take there-
9 fore of the Provincial Government would be considerably
10 reduced not just by the \$12 million but by much more.
11 Let us see what the leading expert on forest
12 industries would say. How much do you think it would
13 be, Bob, for the province as a whole, have you any
14 idea?

15 MR. COSTELLO: Not for the province
16 as a whole. For Abitibi it was about \$200,000 per
17 year and it tied into the consumer products index.

18 THE CHAIRMAN: The escalation index.

19 MR. COSTELLO: Spruce Falls had the
20 same idea.

21 MR. STEELE: Mr. Chairman, these costs
22 to industries such as pulp and paper companies is
23 passed on to the purchasers, but water rentals are
24 used in the Parks Commission, the Parks Commission on
25 the Niagara River at one time. Now they are not only
used along the River, they are spread throughout



2.16 1 Ontario. I believe you are aware of that.

2 MR. DAWSON: Yes.

3 MR. STEELE: So thousands of people
4 that are using the money generated from the water
5 rentals are using our parks system and, as John has
6 shown, we are paying for it in hydro rates. There
7 are thousands of people who don't use the power
8 generated on the river and yet they use our parks
9 and benefit from these rentals.

10 MR. SCOTT: This is more of an
11 observation than a question. You mentioned government
12 interference with Hydro. The Power Commission Act
13 which is the Act of the Legislature under which Hydro
14 operates has been in the same form for many, many
15 years; I think almost 35, practically 40 years; and
16 there are a number of instances right from the very
17 beginning where Hydro has to get government
18 permission to do things and those instances have not
19 changed over time. So I don't know if this question
20 of government interference with Hydro is a new thing
21 or whether the government is perhaps asking questions
22 where previously it just would have accepted a
23 recommendation from Hydro on a particular course of
24 action.

25 The other thing I would mention, we
spend a lot of time thinking about this. It is a



2.17 1 question, can the government leave things to Ontario
2 Hydro? Really the issue is, I suppose, not to try and
3 answer that yes or no, not at this time anyway.

4 But some people would say no because of
5 the tremendous resource that Hydro has relating to
6 the whole provincial product, for instance, Hydro's
7 borrowings and compared to all of the utility borrow-
8 ings in Ontario or even compared to the borrowings
9 of the province are such that some people would say,
10 you can't leave it to an organization whose mandate
11 is to deliver power, in spite of the fact they have
12 done a good job. This is something the government
13 has to get concerned with.

14 I am just putting the other view. I
15 think probably the problems of the Legislature is
16 such that the present government would like to leave
17 things to the Crown Corporation and let them run
18 it, but I don't believe they are quite free under
19 the present circumstances to pursue that policy.

20 THE CHAIRMAN: I might make one other
21 observation, sir, that relates to the points you made
22 about government holding down rate increases of
23 Ontario Hydro in recent years as being one of the
24 reasons why the rate increase for 1976 is so high.

25 I think if you will refer to the
Ontario Energy Board's reductions in the required rate



2.18 1 increases, the requested rate increases for 1975 by
2 Ontario Hydro, the reduction amounted to \$12 million
3 and just to put that in context, and I may be out a
4 fair bit here, but the 1976 rate increase is in the
5 order of \$300 million so even if you gave them back
6 the \$12 million it would not make much difference
7 with respect to the 1976 rate increase.

8 However, that is a minor point.

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10 (For balance of proceedings, non-transcribed, refer
11 to tape log at 226.)
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